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THE JOURNAL OF

DECORATIVE ART:

An Illustrated Technical Journal for the House Painter, Decorator, and all Art Workmen.

FORTY PAGES OF ORIGINAL ILLUSTRATIONS AND TWO DOUBLE-PAGED COLOURED PLATES.

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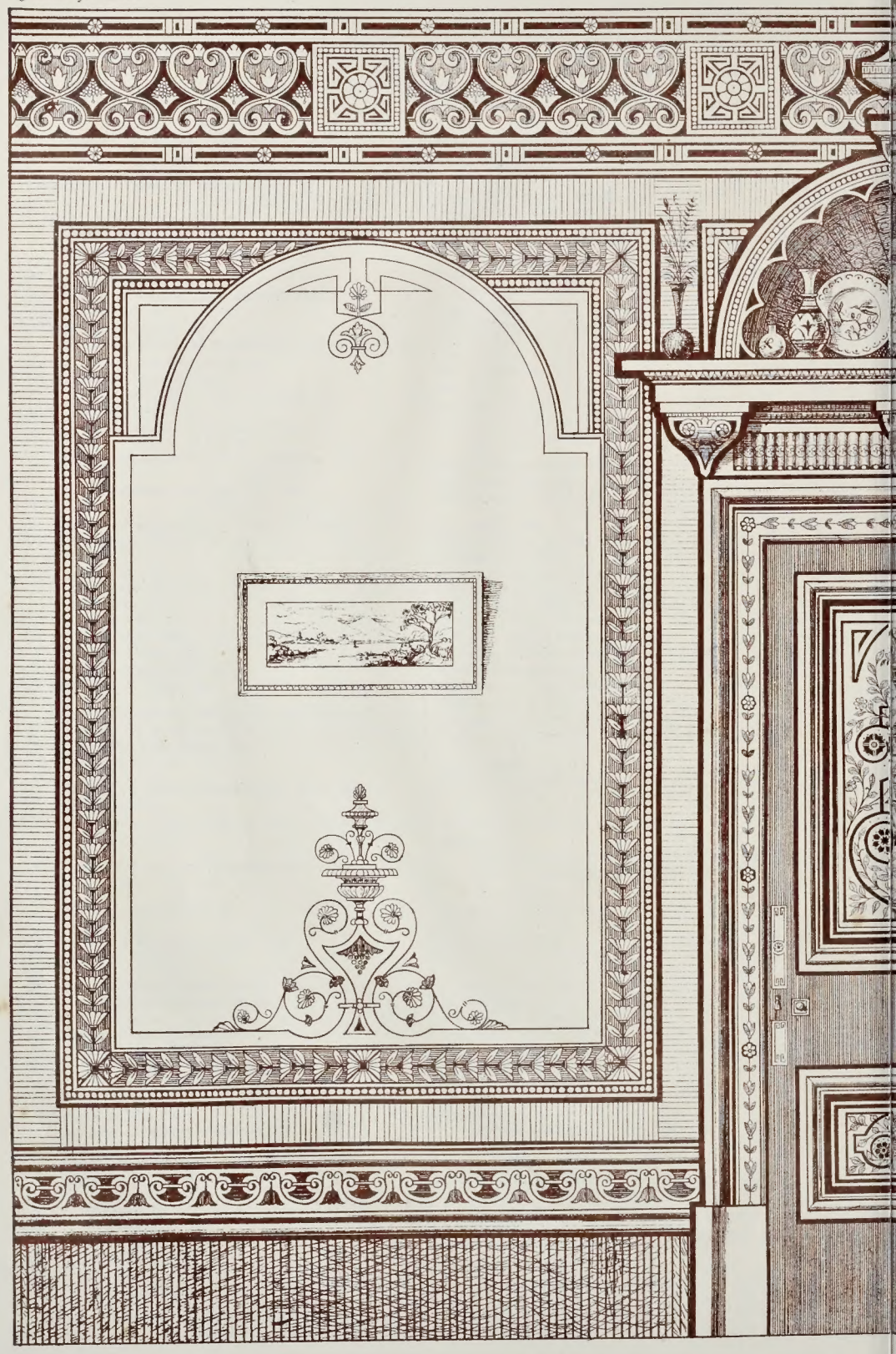
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AWING-ROOM

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INTRODUCTION.

IN addressing a few words to our readers on the advent of this our first number of the "JOURNAL OF DECORATIVE ART," we desire to point out that our best endeavours will be directed to making it in every respect a thoroughly representative journal of the Painting and Decorating trade; and while maintaining this character in every essential particular, we propose to devote a fair share of our space to the elucidation, technical exposition, and illustration of the productions of all other Art workmen. In the subject matter and in our illustrations we shall specially aim at a representative exposition of practical work. The designs will be mainly examples of complete works for the decoration of dwelling-houses, churches, public buildings, &c.—appropriate ornament being thus brought together in the form best calculated to show the position each part should occupy and the general effect *in situ*. This plan will, we hope, be of much greater value to the practical student of Decorative Art than if the ornament were displayed in a detached form, without any visible connection with a general scheme or design, as is usually the case, and will lead to better appreciation and knowledge of the subject. The literary matter will consist principally of technical instruction, but a portion of our space will be devoted to generally interesting matter in connection with Art. The scheme of our paper, which will, we hope, prove acceptable, not only to the trade, but to all who are interested in Art work, includes, amongst others, the following subjects:—

Technical Chapters, by the Editor, elucidating and describing the various processes used in the Art of House Painting and House and Church Decoration; including chapters on the nature, relative value, and uses of materials, tools, &c.; forming, when complete, an exhaustive treatise on the subject.

Colour, and its practical application to House and Church Decoration.

Colour and Ornament: their use and abuse.

Styles of Ornament: the Characteristics of the various Styles of Ornaments.

Natural Objects (Flowers, Birds, &c.): their influence and place in all Art work.

Byepaths in Art: A Series of Chapters dealing with Special Subjects, very often overlooked altogether.

Eccentricities in Decorative Art.

Industries of the House Painting Trade: a History of the principal Manufacturing Houses in connection with the trade requirements—Varnish Makers, Colour Dealers, Paper Stainers, &c.

Owen Jones, and his Contemporaries: their influence on Modern Decorative Art.

Special Processes: Papers giving practical instructions in Graining, Marbling, Inlaying, Sign Writing, Embossing, and Gilding on Glass.

Modelling, Cabinet Making, Glass Staining, Pottery and Porcelain.

Carving in Stone and Wood.

Current Art News of the Month.

Trade Intelligence: Price Lists, Contracts Open, and Works in Hand, &c., &c.

A column will be specially set apart in which *Questions relating to the Painting and Decorative Trades* generally will be answered by the Editor.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.

INTRODUCTORY CHAPTER.

HAVING had forty-seven years practical experience as a working painter and decorator, as apprentice, journeyman, and employer, we may, without incurring any suspicion of egotism, assert that these chapters will be eminently practical in their character; nothing will be set down but what we guarantee from actual practice to be both the truest and best methods of executing the works

described. We conceive that written instructions should stand in the same category as oral instructions to be of real service to the student, viz.: they should be written by one who thoroughly understands from practical experience what he is writing about, and except this be so, no good can result.

House painting and decoration generally, has undergone a complete revolution during our experience. All the resources of chemistry have been brought to bear upon the subject, resulting in the discovery of new colours and new mediums of all kinds, as well as new and improved processes and materials. Fifty years ago the painter had to grind all his own colours, boil his own oil, and prepare all his oil paints—with the exception of white lead—and was thus compelled by the necessities of his business at that time to acquire a large amount of practical knowledge as to the nature and qualities of colour, of which the painter of to-day is entirely ignorant. Oils, paints, colours, varnishes, and every requisite material is now prepared for him, and no doubt in a much better manner than in the old days, but it is a questionable point whether the later system produces as good workmen as the earlier. We are inclined to think that if a man understands the nature and properties of the materials he uses, he will make a much better workman than the man who is entirely ignorant of them. At the date above mentioned, the decorative arts were at a very low ebb in England; it was only the wealthy whose tastes had been formed by foreign travel, who had any knowledge of them. Nine-tenths of the people were utterly ignorant of such matters; we were only just emerging from the reign of whitewash; the colour, ornament, and gilding with which the mediæval artists had embellished our old churches, had been for a great number of years buried beneath successive coats of whitewash; beautiful carved screens, mural paintings and ornamental mouldings, had all suffered the same fate. The religious iconoclasts of the eighteenth century, had no taste for decoration; gross ignorance of art prevailed, and our churches became literally whited sepulchres. In domestic architecture it was the same. The manufacture of wall papers was in its infancy; the paper makers could only supply paper in sheets about two feet long, and these were pasted together to form wall papers coloured by hand and printed with wood blocks, thence called "block printing." The style of pattern which obtained, was the outrageously florid style, Brobdignagian flowers and leaves in the most gorgeous profusion and confusion; conventionalism was neither dreamt of nor understood by the decorators of that day. Stencilling, or "slapdashing" as it was called, was used as a substitute for paper, and was much in vogue for middle class houses. The stenciller would, in the majority of cases, get his patterns from the wall papers; others were designed specially, and he would cut his stencils out of stout paper saturated with boiled oil. Some of the patterns required as many as seven separate stencils for as many different colours, principally worked in distemper, with borders, corners, and centres complete. At that time, schools of design were not; the facilities for the acquisition of art knowledge, so far as the children of the working man were concerned were nil; there were, of course, private drawing schools for those who could afford to pay the cost, and Mechanics' Institutions were just beginning to be established and have some influence, but other means of instruction there were none. Improvements now began to be made in the manufacture of paper; the difficulty of making it in continuous lengths had been surmounted. This gave a great impetus to the manufacture of wall papers, which could now be had at a reasonable cost, and as a consequence, its use became general, and the slapdashers vocation was gone. Then came the abolition of the duty upon paper, which fact, together with the improvement made in colour-printing both by machine and block, caused a further reduction in price, until wall papers could be manufactured and sold retail at twopence per piece of twelve yards.

The Great Exhibition of 1851 gave such a stimulus to the revival of decorative art in England that it might, with some truth, be called the origin of the English Renaissance. After this date, the decorative arts seemed, and in fact did, make a sudden leap from darkness into the light. Men's minds were awakened to the importance of establishing schools of design, and fostering, by every means, that universal desire which had been created for something better and more artistic than they had been accustomed to, and thus the practice of the decorative arts came to be fostered and encouraged, until a marked improvement was manifest to even the casual observer. Since that time the British decorative artist and artizan have made rapid and substantial progress, and have proved incontestably, that, given the opportunity, they are capable of rivalling, and in some respects surpassing, their foreign compeers. The only exception to this is in the art of design, but even here, that he is fast treading on the heels of the French artist, is amply proved by the exhibits of English manufacture in the late French Exhibition, and we have no doubt but that, when he has served a sufficiently long apprenticeship to the arts of design, there will be no lack of designs equal to those of any other nation.

It has been usual with writers on the subject of these papers to fill up the space and confuse the minds of the readers with prolix descriptions, and receipts for making colours and varnishes, many of them thoroughly obsolete, and the majority of them utterly useless.

In these days of advanced chemical knowledge, the colours, varnishes, oils, lead, and indeed

every requisite material and tool are manufactured by firms employing men of the largest experience and knowledge in each particular branch, necessitating large capital and extensive premises; therefore it is idle, and and worse than idle, to think that any mere amateur can manufacture material equal to, or in any degree approaching these large manufacturers, consequently, while giving every necessary information as to the nature and quality of any particular material, we shall avoid all useless knowledge, such as that above referred to. On the other hand, we shall not hesitate to recommend what we have found in practice to be the best colours and most useful tools, irrespective of who makes them.

CHAPTER II.

PREPARATORY PROCESSES IN HOUSE PAINTING.

IN the preparation of walls and ceilings, and in fact all plaster work for painting, much care is required in order to produce good work at the finish. Our attention should be first directed to the clearing off of all protuberances, bits of mortar, or any other matter which may have got upon the face of the wall. Any blisters, caused by imperfectly slaked lime, should be picked out and faced up. For rubbing down the walls, the most effectual plan is to have a square block of cork about 1½ inches thick, or more, so that the hand may get a good grip of it, and fold a piece of sand paper over it; with this the work may be properly done. Sometimes a flat slab of wood, without the sand paper, may answer the purpose, or a lump of pumice stone. It is always best to make the wall as smooth as possible before painting, as we thus save much labour afterwards. When the wall is well rubbed down, and all the consequent dust and grit cleaned off, we should next proceed to stop* or point† up every hole, crevice, crack, or rough and uneven place, with plaster of paris and a little finely screened lime (technically called lime putty). In doing this, care should be taken to stop and fill up the tops of the skirting boards, round the architraves, and all other places, so that none shall be missed. If this is done carefully at this stage, it will save much trouble and time afterwards. When the stopping is dry, every place which has been filled up should now be rubbed level with fine sand or glass paper, wrapped round the flat piece of cork or wood, as before described. No pressure should be used in rubbing; if much pressure is used there is danger of rubbing the face of the wall into holes again; if carefully and gently done, the stopping will be brought down to the level of the wall, and will not be perceived when it is finished, but if carelessly done, the wall will show a roughness when thus rubbed, which will be clearly seen when finished, and create an ugly defect.

Many painters leave the stopping until the wall has had one coat of paint, and then stop the holes with hard stopping, *i.e.*, white lead and whiting mixed together to the consistency of ordinary putty. Others will make it of dry white lead and japanners' gold size, or some other quick varnish is used with the white lead. We prefer to use the first-named mixture if the walls are not done with the lime putty and plaster. There is danger of the stopping cracking when made of any of the above varnishes and lead, and we object entirely to the practice when it can be avoided, as it is scarcely possible to stop or face up the holes without leaving a projection, and still more difficult to rub it down to a level surface, unless it is allowed to stand a long time, to get thoroughly hard, and then it will require to be rubbed down with pumice stone and water. This is generally a long and tiresome job; therefore, for producing a uniform level surface, the first plan is the best, quickest, and on new walls the safest. Some workmen use glue size and whiting, mixed stiff, for stopping, but this mixture is sure to crack, sometimes crumbling to powder, and its contracting power is so great, that if too much size is used, it is sure to dry up, thus leaving a crack all round the hole or crevice into which it has been put. It may be as well to state here that the first process of stopping up and rubbing down, is equally applicable whether it is intended to finish in oil or distemper colour. The walls being now stopped and rubbed down smooth should be well dusted and the room brushed out; the floor washed; planks and steps cleaned, and every requisite means should be taken to get rid of all dust and dirt before beginning the first painting, as all these are a fruitful cause of rough work. Every care should be taken in the mixing of the paint, and to have and keep the brushes and paint, pots, and cans, all free from dust and grit. For when there is much dust on the floor and planks which are being used, the moving about of the men upon them, and the friction of their shoes, causes the dust to rise and settle upon the work in progress, into the paint kettles, and on the brushes; thus creating the very evil we wish to avoid. Precaution should also be taken before commencing painting to cover up the floors of the room in which the work is going on, so that they may not be daubed and spotted with paint. Drop-cloths should be used for this purpose—that is sheets of common wrappering, or old sail-cloth will do. They should be about 7 feet long and 3 feet wide. They may be laid all round the sides of the room, or the workman may carry one with him and lay it just where he is working; but when so used and moved about they are apt to carry the dust with them, and

Technical Terms: *Stop, to fill up; †Point, to fill up and smooth, as a bricklayer does with the joints of the outside bricks.

except great care is taken will do more harm than good. The best plan is to cover the whole of the floor with strong brown paper, firmly pasted down before the work is even commenced; two layers are, of course, better than one. This is the only effectual preservative both against paint spots, and also in preventing the grit from injuring the floors. Men coming into a room with dirt upon their shoes accompanied with grit, of course, tread it into the boards and thus spoil the floor, which the above plan prevents.

When the room is finished and the paper no longer required, it may be easily and readily removed by soaking with water, and thus the floor is preserved uninjured.

(To be continued.)

OWEN JONES AND HIS CONTEMPORARIES.

CHAPTER I.

THE historian of the nineteenth century, when he comes to note the social and intellectual development that has manifested itself, will nowhere find a more complete and startling transformation than in the domain of art, and especially in that portion known under the cognomen of industrial or applied art.

The change does not date much further back than the middle of the century, and is largely indebted for its initiation to the promoters of the Great Exhibition of 1851, and for its continuance and extension to the establishment of the South Kensington School and its auxiliaries.

The improvement that has been wrought in the last thirty years is indeed marvellous—as comparisons of the work produced then and now, will abundantly witness to. The change has not been one of unalloyed good—there is a "seamy side" to it as, indeed, there is to every great movement—but, on the whole, it has been one of direct benefit to the nation, and one for which we have cause to be thankful.

If there are lower deeps than those to which we had sunk in the years immediately preceding the Great Exhibition (of course, we mean in an art sense) the sight of them must be something the gods would weep to see.

Even now, amidst much that is meritorious and worthy of the highest praise there is ample food for regret and sorrow that side by side with it there is so large a proportion of bad art and worse work—or, to speak more accurately, bad work and *no* art.

We pause here to make a few general remarks on the question of English Decorative Art. It has been for the last two centuries, and now is, essentially eclectic in its character. From the decline of the "Tudor" to the present day, we see style follow style without any definite aim or *raison d'être*, except that of fashion. It has been eminently dynastic. The "Palladian" is identified with the House of Stuart, the "Dutch" (or "Queen Anne") with the Orange dynasty; while the Hanoverian influence inflicted on this country a succession of structures as notorious for ugliness as they are famous for the excellence of their workmanship.

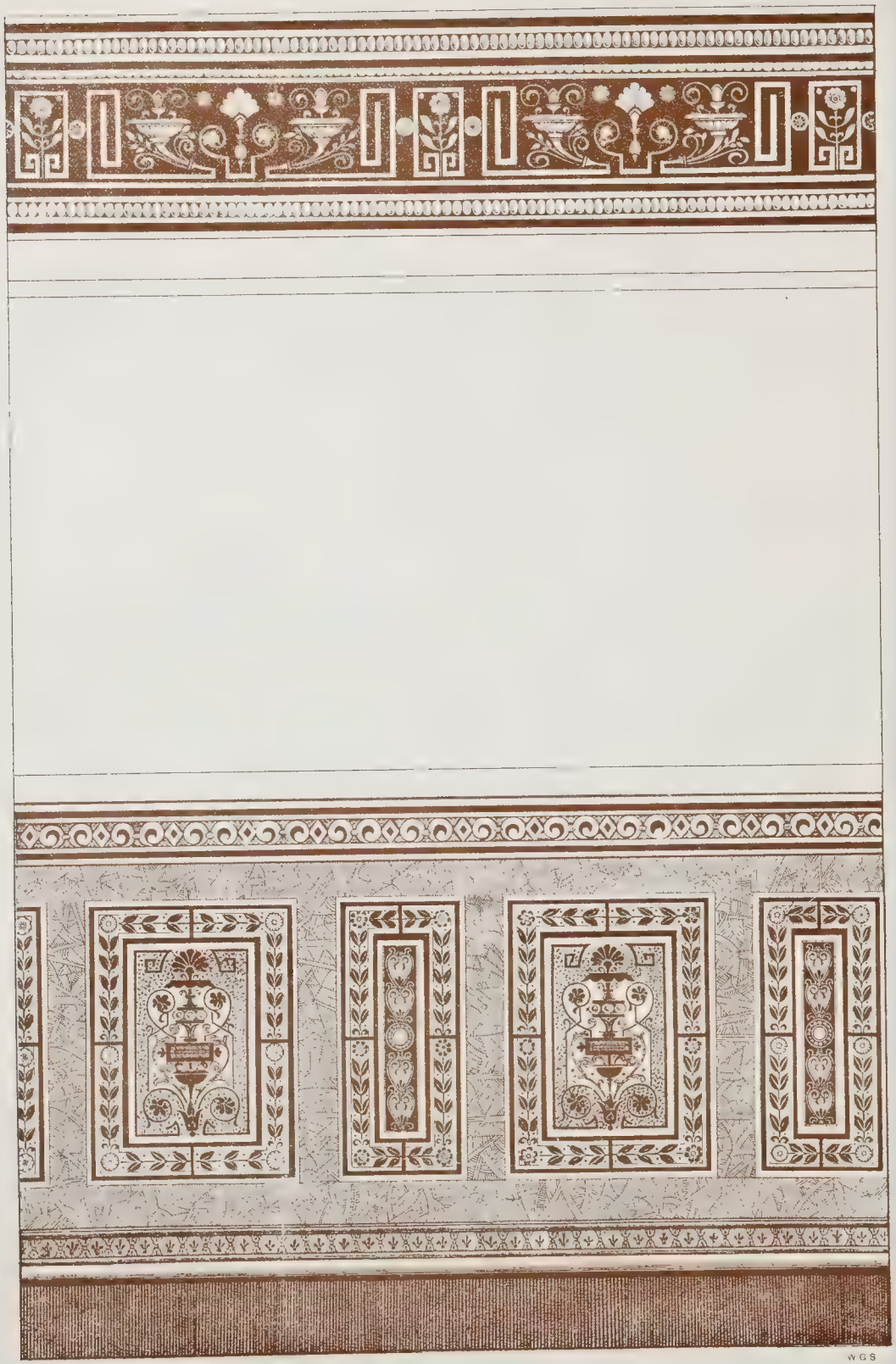
This deplorable state of things gave way under the fostering care of the Pugins, the Barrys, and a few other kindred spirits, to the revived love of Gothic and classic art, to which we alluded at the outset, but of late years there has developed such a variety of styles (?) ranging from "Early English" to "Queen Anne" (run riot), that the senses get bewildered, and the judgment confused and unsettled.

The one consistent aim of the last few years has been (with some noble exceptions) to produce novelty, even where it has had to be purchased at the price of common sense. This has been the case in the structural, and the accessory arts have simply followed suit.

So long as this continues we cannot hope for any permanent abiding or satisfactory results. This tendency to change and love of novelty is very much to be deplored, and is fatal to the cultivation of any distinct or specific style of art. Whatever actual advance has been made is due to those men amongst us who have had definite aims in view, and, disregarding whatever was empiric, even though it would have brought them notoriety and cheap fame, have kept in view the goal of right ends, achieved by right means; these have placed on record, for the use and guidance of succeeding generations, principles and methods which have secured to us whatever of success we have attained, and which will always ensure the same results when rightly followed and obeyed.

In connection with this Nineteenth Century *Renaissance* there were a group of young men whose names will always be honorably identified with the movement, not merely as well-wishers and promoters, but as actual pioneers—men who went out into the wilderness and forests and cut down the dense overgrowth of ignorance, and watered the sterile tracts of indifference—men who toiled and laboured for others to enter into and enjoy the fruits of their efforts, content to be working with the assured consciousness that efforts rightly directed, and labour thus spent, cannot be lost, and must, in its own time and way, bring with it its own reward.

Around the names of this group centres the interest and history of the progress of Decorative Art for the last 30 years, and in placing before our readers a series of brief biographies of these men, we are but recording the triumphs Decorative Art has won during that period.



W.S.

W.G.S.

DESIGN FOR HALL.

We give the first place in our series to the name and work of the late Owen Jones. We do this because it appears to us that the thoroughly sterling work that Mr. Jones accomplished is apt to be overlooked or under-rated. Certainly, no individual man of modern times has laid the decorator under such obligations, not only in what he actually personally accomplished, but in the love of Art which he evoked, and in the direction in which he guided the awakened interest.

(*To be continued.*)

ON THE MATERIALS AND TOOLS USED BY THE HOUSE PAINTER AND DECORATOR; THEIR PROPERTIES, COMPARATIVE VALUE, AND USE IN THE TRADE.

SIZE.

UNDER this head we purpose giving our readers the result of our long practical experience as to the nature, properties, and qualities of the best oils, varnishes, leads, zinc paints, silicate paints, tools, and, in fact, on every kind of tool, pigment, medium, &c., both for oil and distemper work. We shall also notice and comment upon all new inventions which will be of special interest to the trade, many of these being well worthy of careful study.

The first article which comes under our notice is that useful medium, size. Of this special vehicle for mixing and use in distemper work, there are several kinds, or rather preparations, of the same or a kindred nature, viz.: that made from glue, English, Russian, and American, trotter size, parchment size, size in the condition of a strong jelly, and the "concentrated" size.

In considering the various merits and demerits of these glutinous mediums for the painter's use, we have to regard first their suitableness to the purposes for which they are employed. Secondly, their economy in use, as to time spent in preparing them by the workman, and, lastly, as to waste.

Until very recent years the painter was confined to the use of cake glue, from which, with much trouble and cost, he prepared his size; in fact, this is still the case in out of the way districts—although, of course, parchment size was available at a very early period—but the glue size in that form required so much time to melt and prepare that it was at best but a clumsy and wasteful expedient.

Parchment size, or buffalo hide size, was made from clippings and shavings of parchment and cuttings from hard, dried, tanned, hides. These were placed in a pan, or boiler, and allowed to simmer and stew for a great number of hours, in order to extract the whole of the useful matter, it was then strained and diluted to the required strength, and allowed to go cold, when it was ready for use.

This preparation makes an excellent size, one of the clearest and best mediums we have, but it is so troublesome to prepare, and so expensive when it is prepared, that it is now very little used.

Trotter size is a good clear size while it is fresh, and is prepared from the refuse made in the factories of the wholesale tripe dressers, and though sold cheap the supply was (and is) very intermittent, and much time was lost by men in looking after it.

We may, therefore, dismiss the foregoing preparations from our catalogue as being clumsy, expensive, and obsolete. We now come to a great and useful improvement in the manufacture of sizes, which has proved a real boon to the painting trade, effecting a saving in time, money, and temper. A few years ago size was placed upon the market in the form of a very strong jelly which could be cut in lumps from the barrel in which it was packed, quickly dissolved and made ready for work. But it had one drawback—it rapidly went putrid and became a dangerous nuisance. This defect, however, was soon remedied, and now the manufacturers send it out in an improved form which will keep good for a very long time. There can be no doubt that this form of size is a great advance upon the old system and is much more economical.

Quite recently another form of size has come into the market, and from our experience (extending over the last fifteen months) of its use, we are inclined to the opinion that it is infinitely the best form in which this useful material has been placed in the hands of the trade. It is described as "Cannon's Concentrated Size."* It is sold retail in pound packets six inches long and two and a half in diameter—a good arrangement for the workman, as it can be conveniently carried, is of little bulk, and the workman can use just what he requires from the packet and refold the remainder for another occasion without there being any excuse or necessity for waste. It is always ready, clean, and in a fit state for use, while the labour of preparation is simple and inexpensive; the painter has merely to put the quantity he thinks he will want into a pail or bucket and pour boiling water upon it, stirring it carefully until it is all melted, which takes only a minute or two, then sufficient cold water is added to reduce the size to the required strength, and it is ready for use, the cold water assisting it to "jelly" quickly. One pound package will make from one to three gallons of size suitable for most purposes, but of course the proportions may be increased or diminished as required.

We decidedly prefer this preparation before any other yet invented, the price being reasonable, waste being reduced to a minimum, and the saving effected in economy of material and time much greater in the aggregate than with any other size.

* Manufactured by B. Cannon & Co., Lincoln.

OUR ILLUSTRATIONS.

THE designs given in this, our first number of "THE JOURNAL OF DECORATIVE ART," have been specially drawn for the work, and consist of a double page design for the decoration of an ordinary sized drawing-room, in the style of the *Renaissance;* a full page drawing for the decoration of a hall or staircase; and a full page of four examples of stencil borders, for use on the top of dados of staircases, &c. In our next number, we shall give a double page drawing for the decoration of a dining room in the same style, and a double page example of dining-room door to match. The whole of the designs are drawn to scale, which is given. The borders may be used double the size of the drawings, or they may be used for many purposes as they are. With regard to stencil patterns, we beg to say that we shall treat exhaustively of stencils and stencilling in our articles on decorative processes, but we may point out here, that, apart from beauty of design, the greatest merit in a stencil pattern is due to that design which shows least evidence of its *modus operandi* when worked upon the wall. The "ties," which are the bonds that hold the different parts of the pattern together and cannot be altogether dispensed with, should, in order to produce good work, be as little seen as possible, and when they can be made to appear as a necessary division of the ornament, the effect is infinitely superior. Broad ties and divisions of the pattern cause the finished work to have a detached and fragmentary look, and give it an altogether common appearance.

Referring to our border plate, the meaning of our previous remarks will be at once evident. Nos. 1, 2, and 4, are designed to work entirely without ties, and in No. 3, it will be seen that the ties which are necessary —with the exceptions of the four which hold the rose in its place—are made to appear as round dots, thus making them part of the design.

Two colours may be used with the one stencil as indicated, in Nos. 1, 2, and 4, but two stencils will be required in using No. 3 if two colours are put in, also in No. 4, if the leaves are to be half shaded.

The broad and narrow lines at the top and bottom of each pattern, are best run with the flat lining-fitch and straight-edge, but when the fine line intersects the ornament, it may be cut in the stencil. Examples of what is here meant will be given in future numbers.

It is an exceedingly difficult matter to give in writing exact and clear instructions in colouring any given design for a room, one reason being that the aspect of the particular room and its surroundings vary so much, the colouring for one room not being suitable for another which differs in these respects, but as we purpose for the most part, to indicate the general character of the colours and tints which may be used for almost every complete design we issue, we hope to make them sufficiently clear to enable the decorator to adapt them with success to any work he may use these designs for.

The design for the decoration of a drawing-room, may be coloured in the following manner, leaving to the decorator (of course) the option to modify them to suit the aspect and character of the room, the colours indicated being suitable either for oil or distemper.

PANELS OF WALLS.—These may be laid in a light warm grey tint, made from Indian red, Ultramarine blue, and a little Oxford ochre, with white. The yellow helps to harmonise and take off the coldness of the blue.

The stiles may be of a dull cream colour, made from white, Oxford ochre, and a little Venetian red or vermilion; or they may be of a light yellowish fawn colour.

The bands of the frieze should be laid in with a colour made from the stile colour with a little umber and ochre added to it to moderate the tone.

The square patera on frieze to be done the same colour as the bands, and the panels also of a darker shade of the same.

The panels of the door and the flat of the architrave may be painted with the second shade of cream colour, and the stiles of the door and bottom flat of skirting, will be best of a strong tone of warm grey, rather of a reddish or purple hue. The mouldings of door and architrave painted with the several shades of cream colour, and the quirks run in with darker greys inclining to blue; or they may be of a purple brown tint, as will best harmonise with the other colours, and add depth and force to the constructive details of the mouldings.

All the ground colours being laid in, the stencilling and lining may be done with the following colours:—

THE FRIEZE.—The colours for stencilling the backgrounds of the square patera on freize, should be of a full-toned dull red. The stencilling on the bands to be of the same.

The stencilled background of panels of frieze to be done with a deep tone of bluish grey, strong enough to throw up the pattern distinctly, and yet to appear soft and quiet. A lighter tint of this last colour will answer well for stencilling the background of the leaf border round panels of wall, and also for the ornament on top flat of skirting.

The broad lines on bands of frieze must be run in with the lining-fitch, and may be of a strong tone of neutral tint of a brown hue, the fine lines being of a stronger and brighter red brown. The lines round border of wall panels may be of the same colour as those of the frieze, but not so strong in tone.

The lines on the wall panels connected with the ornaments, and the ornaments themselves, may be either of a strong warm grey or of a dull gold colour, or the ornament may be stencilled in parts with two or three of the other colours on frieze and wall, and if this is carefully and judiciously done, a very excellent effect will be produced. The ornament on the panels may be outlined with a fine line if desirable, and if well done, would give it a highly finished appearance, as the ornament might be shaded in relief. This, however, should not be attempted except the workman has a thorough knowledge of light and shade.

The design on the door will lend itself to either a flat treatment, or for painting in relief, and the ornament may be either laid in with a stencil or painted in with the brush, but in either case the ornament, if left flat, must be outlined. The under work of leaf decoration, will be best kept of a subdued and quiet tone of colour—a faint dull tint of neutral green, yellow predominating. The stems may be slightly red in tone. A little red added to the same colour will answer the purpose.

The band ornament will be best done in a yellowish brown, and the vase, &c., of a golden brown of a decided tone. The flowers in vase may be painted in conventional colour and form.

Part of the mouldings of door and architrave should be gilded.

The recess over door may, of course, be dispensed with, but if used, the dark warm grey will form a good background for vases, &c. The woodwork may be of some light wood, either stained and varnished, or French polished, or it may be painted in the same colour as the door.

HALL AND STAIRCASE DESIGN.

The Hall and Staircase design can be coloured in various ways, and the colours will be regulated in some measure by the amount of light admitted to the staircase.

The frieze may be laid in a warm buff, made from Oxford ochre, Indian red, and burnt umber, with white. The wall space to be of a coolish drab stone colour. The border of dado to be painted of the same colour as the frieze, but darker, and fuller in tone.

The panels of dado may be painted of a dark dull neutral greenish hue, made from Brunswick green, Indian red, and burnt umber. The stiles to be of a rich brown or marone colour.

The stencil colour for background of frieze, should be of a strong bluish grey. The lines on bands, &c., either black, dark marone, or deep red (Indian). The lines on wall space, the colour of background of the frieze.

The border on dado, background black and marone with red or black line. Stencillings on panels to be done in black, red and marone colours, with black lines.

Further information in regard to these designs, will be replied to by the Editor in "Answers to Correspondents."

Art Notes.

A huge joke was perpetrated a few weeks ago. So vast and ponderous was the humour that ordinary minds have not even yet been able to grasp it, whether extraordinary ones have ere now divined it we decline to say.

The "joke" occurred in a trade journal that has for some time past rejoiced in the possession of a "Ph. D. and F.L.S." as its Art-editor, and one too bearing the "Hall Mark" of S. K. From such a source we naturally look for an authoritative exposition of decorative art. We asked for a "Fish" and, alas, we were offered a "Stone," in the form of "Landscape Art."

The question was asked: Why should not landscape be incorporated in Decorative art? "Echo answers, why?" We are sadly afraid that our early education must have been neglected to a degree we had hitherto no conception of if this is "Art." A centre panel with a series of cones overlapping each other, a disc (possibly the moon), some bamboo canes with branches projecting at right angles, with (presumably) fir cones depending from them in a melancholy fashion, and we have a "decorative landscape."

But the tableau is not complete. The "landscape" is environed with a border, "en suite," painfully suggestive of the hind legs of some unfortunate animal suffering from spasmodic rheumatism, or from the gentle attentions of Tennyson's Vivisector. We must protest against this playing with serious things by a journal making grave pretensions to speak on behalf of an honourable and important industry, and an editor who is the living oracle of the departed shades of all art workers, from the time of Phidias to the late Owen Jones.

The British Architect Almanack for 1881 is quite a work of art, and well worthy the source from which it emanates.

The Society of Water Colour Painters usual winter exhibition in the Society's rooms, Pall Mall, shows a goodly array of paintings on wall and screen. The work of such old exhibitors as Sir John Gilbert, Messrs. Fredk. Tayler, David Cox, jun., Oswald Brierley, W. C. T. Dobson, R. A., Samuel Read, and the late G. Dodgson are so well-known as to call for no special comment, they are all worthy of their authors, and add tone and interest to the exhibition. The contributions of Mr. Thorne Waite are noticeable alike for their number, boldness of touch and faithful portrayal of Nature's passing moods. Mr. H. S. Marks, R.A. sends a humorous drawing of two penguins, surnamed "The Two Dromios."

"Methinks your are my glass
"And not my brother."—*Comedy of Errors.*

Apropos of this artist's work, those who failed to see his exhibits in Messrs. Agnew's Exhibition (just closed) in Manchester, missed a treat. For softness and harmony of colour, for delicacy of touch and handling, they were unsurpassable.

Mr. F. Shields' "Aquila and Priscilla" and his "Angel" are drawn in the style he has identified with himself for some time past. "Lilium Auratum" (65), by Mr. E. K. Johnson, is one of the choice bits of the exhibition, and (150) "A Summer's Day," by the same artist, is a worthy companion. Mr. Brewtnall's "Princess" (124) is one of the few exhibits of "figure" painting displayed on the walls, and is a satisfactory picture in every respect. The "flower" subjects sent by Mrs. H. C. Angell are all distinguished by the sympathy of touch and feeling for which she is celebrated. 14, 17, 23, 28, 41, 95, 110, 155, 156, 164, 172, 208, 256, 257, 291, and 311 are all worthy of praise and separate comment did our space permit.

"JOHN RUSKIN, HIS LIFE AND WORK."

To many the name of Mr. Ruskin is simply that of an "eccentric," "fanatical," "crotchetty" individual, and the mentioning of him or his work is sufficient to provoke a sneer or evoke contemptuous pity. Our experience has been that, in nine cases out of ten, the "scorners" have never read a single line of Mr. Ruskin's works, or attempted for a moment to understand his aims. To all such, and to many more besides, who are in closer sympathy with him, we commend a little work just issued, being an address delivered by Mr. Smart, President of the Glasgow Ruskin Society, published by Porteous Brothers, Glasgow, and Abel Heywood and Son, Manchester.

* JAPANESE ART.

The fashionable furore which obtains at the present time in favour of Japanese Art, to the almost total exclusion of any other style, is apt to lead the unthinking votary wofully astray as to the real nature, value, and position of the productions of the Japanese Artists.

Mr. Cutler, in his *Grammar of Japanese Art*, very truly says: "Keen admirers of Nature as the Japanese are, and fully alive to "all the wealth of flower, foliage, and scenery in which their "country is so exceptionally rich, it must not be supposed that "their art is entirely the outcome of their own observation. "Doubtless their love for Nature produces upon the minds of "the native artists certain impressions, which they more or less "unconsciously produce in their works, but until within the last "five or six years, when they began to follow European teachings— "followed thus far with lamentable result—it is safe to affirm "that their productions were rarely the result of deliberate or "direct study from Nature. The power of the artist's effects, the "wonderful facility of his execution, the beauty of the colouring "and delicacy of drawing, all combine to give what may pass for "a marvellous transcript of Nature; but taken separately and "examined critically, the objects depicted, be they bird, flower, "leaf, or insect, will be found incorrect in form, proportion, and "construction if judged by a European standard."

He points out also that—"The method of teaching which is "adopted in Japan is not adapted to foster direct study of Nature, "any more than originality. A seri s of copies, increasing in "difficulty, are imposed upon the student; he has not merely to "imitate them, but to remember them so well as to be able to "reproduce them (and them alone) from memory. The copies "thus become standards of art; their defects are overlooked, "and it would perhaps be a sort of treason to doubt their "perfection, or to dream of rivalling them. 'These elegant "stems, those feathery petals, apparently thrown together with- "out restraint, are,' says Mr. Cutler, 'executed after a number of "models, prepared long beforehand, and which every painter "possesses.' Under such circumstances individuality has no "chance, and the wonder is that, after so long a term of bondage, "all vitality has not departed, and that the ornament is not "mechanical and unimaginative, like that produced by the "system of division of labour which finds approval in England."

† THE GLORY OF ART.

"The glory of Art lies in its power to transform the common "facts of Nature till they take a colour and passion from the "human spirit; but in this glory lurk the elements of decay, for "what was the living symbol in the minds of our age, becomes in "the next a thing of outworn fashion and uncertain significance. "Little by little, as the dialect perfected by great men falls from "common lips, it loses the accent of vitality, and lesser scholars, "trading upon their master's discoveries, are scarcely conscious "how far they have changed his language till the world finds that "it is listening to a dead tongue."

MICHAEL ANGELO.

"When Michael Angelo died, it was vain to hope that those "who came after him could carry forward the sublime style which "is associated with his name: and his death, therefore, was the "signal and the note of the downfall of the glorious art of "Florence. But Venice had never, from the first, so closely "associated itself with the higher movement of the intellect, and, "therefore, the masters of Venice were able to survive the signs "of intellectual decay, and were even helpful in forwarding the "revolution by which it was succeeded."

HOGARTH, REYNOLDS, AND GAINSBOROUGH.

"These men are the types of what was of genuine growth in "the Art of their time. Their achievements were the outcome "of a sure process of evolution; in their labours they had the "support and guidance of a long and unbroken tradition of "executive style. How instinctively, by the light of their genius, "they were able to measure the resources at their command, and "with the native prudence of genius, refuse to attempt what lay "beyond their powers, we have seen by reference to a different "order of art, which others were vainly seeking to establish. "Barry, Blake, and Haydon—such men belong, we may say, to "the church militant of art. But it is not to be said of a painter "like Barry, that, because he fell short of the goal towards which he "pressed, that therefore, his influence counts for nothing in the "history of our school. The time had not yet come for such "victories as he sought to win. But whoever hopes for conquest "in that vast realm of ideal beauty that he saw only from afar, "and with uncertain vision, must strive with something of his "noble persistence and undaunted courage. He was the first "notable instance in our school of a painter devoting himself "altogether to the pursuit of a kind of art that offered no hope of "great immediate reward. He may, indeed, have been misled by "ambition, but the penalty fell chiefly on himself; and we may "forget the frailties of his temper—nay, we may even forgive the "faults of his design—in gratitude for the grand and austere "example which he set to the students of succeeding generations."

M. JULES SIMON ON EDUCATION.

That importance which is attached in all thinking minds in England to the proper education of the workmen, the manufacturers, the employers of labour in future, is no less felt abroad. Only a few days since, M. Jules Simon, in reading before the Academy of Inscriptions and Belles Lettres, a portion of his collection of Reports on the Exhibition of 1878, successfully showed how completely we may attribute the advance of industry in the present day to the progress made in science and intelligence, the work of our superior schools; to their still greater development he looks for the future of industry. "Let us give professional schools," the eminent statesman and Academician said, in concluding his address, "let us give professional schools to our miners, our blacksmiths, our decorators, to our weavers, our watchmakers, to our carvers, our cabinet-makers, to our cultivators. But let us remember to make of them men, because it is with men that workmen are made manufacturers and *savants;* primary and secondary schools to make men, schools of apprentices to make workmen, schools of application to make engineers and chemists, superior schools to make *savants* and professors. Let us make a crusade for education and science. In the situation in which the course of events has placed us, it is no longer possible to be ignorant,—to stop. We must advance, or fall."—*Builder.*

NATURALLY-COLOURED PHOTOGRAPHS.

At the invitation of the Directors of the Colour-Photographic Company, a conversazione took place recently in the rooms of the Dilettante Club, Argyll-street, Regent-street. The chief attraction of the evening was an exhibition of colour photographs, done by the new process. According to the reports, the colours are produced by the action of light alone in the camera, and owe nothing whatever to the artist's brush. In the photographs exhibited, the colouring appeared to be quite true to nature, and delicate tones and shades were clear to the view. The flesh-tint was exact to life, and full justice was done to gorgeous regimentals. The protruded tongue of a dog in one of the photographs possessed the exact colour of nature. Some of the guests, inspecting this collection, and not fully acquainted with the character of the latest invention, took it for granted that the work was done by skilful artistic hands on ivory and other material, and could scarcely believe their eyes when informed that the colour, as much as the form and outline, was produced by the light of day. Careful and minute investigation, however, would then show that human handicraft was not in it; for there were touches and effects which Nature's pencil of light could alone accomplish. The contention is that photographs coloured by artists, however clever, must be more or less "monotonous, hard, untrue to nature and to the originals." The process was discovered, in the first instance, by a French scientist, but has since undergone improvement by the proprietor of the patent for this country. It remains to be seen how soon and how much the patented process will be withstood by photographic colour artists, who form a considerable number in the industrial community, and who, if Nature can do the work of colouring better than their hands can do it, will have to seek a new field of industry. If the new system prove an unqualified success, the reward will not have been reaped without much labour in the past; for it appears that numerous attempts have been made to induce the sun-pencil to fix colours in the pictures it draws in the camera, but chemical and mechanical difficulties have stood in the way. In the new process colours are said not only to be faithfully produced, but protected from the action of light by being passed through a boiling solution, of which gelatine forms the principal ingredient, and that some of the photographs so treated have been exposed for months to the sun without being, in any wise, affected by the ordeal.—Unfortunately, the reporter does not tell us "how it's done," although the process is a "patent," and, therefore, "open."—*English Mechanic.*

* Cutler's *Grammar of Japanese Ornament*, published by T. Batsford, Holborn.

† From a Lecture delivered by Mr. H. Herkomer, A.R.A., before the Members of the Leicester Literary and Philosophical Society.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

BY THE EDITOR.

INTRODUCTORY CHAPTER.

MUCH has been said and written both for and against the use of imitations of woods and marbles in decoration. We do not intend to discuss the question here; suffice it for us that custom, practice, and precedent sanction their use. The late Mr. Owen Jones, and his equally celebrated contemporary, Sir Digby Wyatt, and others of the highest authority on decorative art, admit of imitations being employed wherever the real wood or marble could or would be used in architectural construction. That this is a sensible and right view of the question we are sure, and none but crotchetty critics will dispute it. However, we are safe so far in the fact of its being universally used in all classes of buildings, both for interior and exterior decoration, for purposes of utility as well as adornment, and we may rest quite assured that its practice will never be discontinued. Even from an economical point of view its value is great, inasmuch as no other kind of painted work lasts so long or bears washing and cleaning so repeatedly (without injury) as grained work.

As a means of decoration it is valuable. Beautiful combinations may be formed with the great variety of different coloured woods and marbles available for the use of the artist, which in skilful hands may be worked up into the most complicated and tasteful forms; and if good taste be exercised in the selection of the woods and marbles and their harmonious arrangement, really artistic works may be executed. We cannot see why works of this class may not be ranked with other decorative works which are usually placed on a much higher level. However, as we purpose devoting a paper to the question of imitative art, we will here leave it till a more convenient opportunity, and simply confine ourselves to the description of the manipulative processes employed in working grained woods.

How long ago, or when the art of graining first originated, we have no record to tell. Man being essentially an imitative animal, he may have begun very early. Let that be as it may we can only record our own experience in respect thereto. We remember, upwards of forty years ago, seeing in an old mansion in Yorkshire some imitation of oak which, by well-authenticated testimony, was proved to have been done upwards of sixty years before; and it was, at the time we saw it, undergoing a process of cleaning and varnishing, and although dark with age and repeated coats of varnish, it was in a condition to last many years longer. Oak graining, or the imitation of the grain and character of oak wood, of which we are now about to treat, is peculiarly an English process. To an Englishman the oak tree is an embodiment of strength, grandeur, and utility. Its praises have been sung and its sterling qualities lauded by poet and sage. To it the stability and beauty of our ancient baronial halls, and the half-timbered dwellings of England's sturdy squires and yeomen, are due, and our churches and municipal buildings, in panelled wainscot and in glorious carved screens, are under a debt to it. For quaint and substantial furniture, from the throne of the monarch to the rude bench of the peasant—to all these and countless other uses has this famed English wood been applied. No wonder Englishmen are fond of this truly national tree, and hence the very natural desire to see it about them in every form—oak doors, oak sideboards, chairs, bedsteads, and furniture of every description. Indeed, this fondness for oak has led to its being the only wood which in England is universally imitated. Wherever we go, in hall or cottage, we see this wood, either real or grained. The beauty and novelty of its grain and workings peculiarly adapt it for being imitated, and its colour is cheerful and clean looking, lights up well by artificial light, wears well and lasts long, is easily cleaned, and after years of wear, by renovating, may be made to look as good as when new—valuable qualities from every point of view. It is a singular fact that out of the millions of feet of oak planks cut up yearly the markings of no two planks are alike. It needs but to take the thickness of a shaving off an oak board, and the figure or marks will be changed. No other wood with which we are acquainted possesses this quality, all others having a sameness and a mechanical repetition of pattern in their markings from which oak is free.

As in connection with these papers we are desirous of giving every information necessary for a thorough understanding of the subject in all its bearings, we shall, before describing the method of imitating each wood and marble, give, so far as we are able, a short but comprehensive history of each wood, and the geological information requisite in connection with each marble.

The Oak Tree *(Quercus)* is of the natural order *Cupuliferæ*, having a round nut called an acorn. The species are very numerous both in temperate and tropical countries. A few species are found in Europe, and many are natives of the torrid zone. But in the peninsula of India and Ceylon, in tropical Africa, in Australia, or in South America, none are found. North America produces many. Throughout all Europe two species are found, the common oak having the acorns on longish stalks, the other having them almost without stalks. Both varieties occur in Great Britain, the first being the most prevalent. The

short-stalked oak is sometimes called the Durmast Oak, in England, and it has been much disputed which is the true British oak. Noble specimens of oak trees, and some of them historically celebrated, exist in almost all parts of Britain, but are more frequent in England than in Scotland. The former existence of great oak forests is attested by the huge trunks often found in bogs. The oak attains a height of from 50 to 100, or even 150 or 180 feet, and it reaches its greatest magnitude in periods varying from 120 to 400 years, but lives to the age of 600 or even 1,000. The timber, especially of English oak, is very solid and durable, peculiarly unsusceptible to the influence of moisture. Its bark abounds in tannin, used for curing and tanning leather, and in the preparation of medicine as a tonic on account of its astringency, and with gall-nuts in the manufacture of ink. The acorns are a very nourishing food for swine, and in times of scarcity have been often used for human food. Apart, therefore, from its uses for furniture and building, we see that the oak is a valuable tree. English-grown oak is finer and closer in the grain or fibre than any other known species. American oak, with the exception of the American "Live Oak" *(Q. Virens)*, which is an evergreen species with leathery leaves, and much used in the United States for ship building, is coarse-grained and spongy and not so finely marked as our own English species.

CHAPTER II.

Oak Graining.

THERE are several methods of imitating the grain and markings of Oak wood, many of which are obsolete and out of use. Like all art requiring technical skill and knowledge in order to become proficient in the practice thereof, graining and marbling necessitates close attention and study, and incessant practice. Without this no written instructions will be of any benefit, but with practice, written instructions, being, as they should and ought to be, the results of a lifetime of practical experience in the manipulation of the best means to bring about the end in view, reliable directions in combination with close study and practice, will, in the majority of cases, bring about a successful result.

The oldest method of graining with which we are acquainted, was of a primitive and very imperfect kind, and was done by first coating over the work with a kind of graining colour, which was streaked with a duster. The figure or dapple was then put in with the end of a tallow candle, the result being that the graining colour dried hard everywhere except on those places touched by the tallow, and these were then wiped off, showing the clear ground colour, the effect being no doubt looked upon with much pride in those days. Another system, which obtained for a considerable time, and which was certainly an improvement on the first plan, was to mix some burnt sienna, vandyke brown, or burnt umber, with sweet oil or beeswax, and with a pencil or flat fitch of hoghair, and this colour, put in the various markings (technically lights) as they are seen in the real wood. When this colour had set, a graining colour was mixed in distemper, that is, with raw umber and Oxford ochre, with a little burnt Turkey umber or black in it, ground in water. With these, thinned to the proper shade with beer, the work to be grained was covered, then streaked with the brush and flogged or beaten with a flat brush; this would give it a distant resemblance to the grain of the wood. When the distemper was dry the markings were then washed off the panel with turpentine. Effects were occasionally got even by this system which were not altogether bad.

The next great stride in the march of improvement in oak graining seems to have been the natural outgrowth from this last process, and is called spirit-colour graining. When well and properly done, with due regard to nature in colour and grain, it is a very useful and cleanly process, and while it is inferior as a representation to oil colour graining, it has an advantage not possessed by any other system, *i.e.*, that work done by this process can be grained and varnished on the same day, which, under certain circumstances, and for certain work, is a very valuable quality, saving much time in mercantile offices, thus shortening the necessary interruption to business. It is very extensively used in some districts, notably in the metropolis, but not so much perhaps of late years.

The method of working is as follows: the graining colour must be mixed with care, so as to avoid having too much or too small a proportion of either one or the other ingredient. The material required is some of the best washed whiting ground fine in turpentine; burnt sienna ground in oil; burnt umber, and a little drop black. In mixing the whiting with turps, add sufficient staining colour (any of the above) as will stain the whiting to the depth of colour to produce the shade of oak required, then add sufficient turpentine varnish to bind or fasten the colours when thinned to a working consistency with turpentine. A trial should now be made of the colour before commencing any important work, in order to test it. If it is not fast enough when dry, add more varnish, and if there is too much varnish in it, it must be thinned with turpentine.

The colour being ready—if properly mixed it will work freely—we will proceed to grain a door. As the spirit colour sets and dries very quickly it will require quick working.

Lay the colour on a panel with a pound brush, spreading it as evenly in body as possible; it may then be streaked slightly with a duster or flogger—the form of which, with other tools, combs, &c., &c., will be fully described in another place—then comb it with a fine steel or bone comb. This must be quickly done or the colour will set or dry, and, of course, cannot then be combed. The colour dries quite dead or without gloss. When the panels are all done and combed the mouldings may be worked. It will be found that the colour in doing the panels has dried upon parts of the mouldings, but this will work up again when the fresh colour is placed upon it, and so may be worked clean. These may be stippled or flogged with a sash-tool, care being taken to leave them uniform in depth of tone, and clean looking in colour; the best work is often spoiled by carelessness in this respect. The stiles of the door may now be done, and it will be found best to do the cross rails first, after the two middle stiles, and then the outer stiles. Much beauty is added to the work if the joints of the stiles and rails are cut sharp, clean, and straight, which may be done by using a little turpentine and cutting down the line of the joint with it, then wiping or brushing the colour off with a dry duster or cloth. We now require a long-haired fitch, commonly called a veining-fitch. Dissolve some common Scotch soda in water, add a little burnt sienna, ground in water, to the soda, and with the fitch dipped into the soda mark the figure or dapple on the grain as it is seen in the real wood. The soda should be strong enough in colour to enable the grainer to see his work as he goes on. It will be found that by holding the tool lightly between the finger and thumb, using the fitch perfectly flat, with the bristles close and compact together, that exceedingly fine as well as coarse veins or figures can be produced with extraordinary rapidity by an experienced hand. Great care must be taken not to let the soda flow from the fitch too freely or it will spread and make ragged work, for it should always be borne in mind that wherever the soda touches the graining colour will come away and make a mark. When the work has stood a little while we must take a soft sponge and plenty of clean water and wash the soda marks well off, which, if properly done, will leave all the figure clean and bright. The work must be then brushed over with weak beer and water, in the proportion of half beer and half water, then over grained as hereinafter described. A door may thus be grained and varnished in a couple of hours. The solution of soda is sometimes dispensed with and turpentine used in its stead; the veining fitch is dipped in turps., stained to show the marks, and as the grainer marks his panel he wipes off the veins with a piece of flannel before the turps. has had time to evaporate. Wherever the turps. touches the spirit colour it immediately softens the turpentine varnish, which may be wiped off, but only while it is wet, and as, of course, it dries very soon, the work requires to be quickly done or else it is labour lost. This method is not so cleanly as the soda, but we have done good work with it. The heart or "sap," as it is often called, of oak may be admirably imitated on this system, especially upon moulded surfaces. The heart or curled grain may be worked with the corner of the fitch, or with a sable writing pencil and turpentine on a moulding, when the curled marks are put in as before described, and while it is wet brushed or softened all one way, that is, in the direction in which the sap or curl runs—the direction of its growth. If this is well done the light and dark edges of the real wood may be closely imitated. But the most important system of graining oak is the oil colour process, of which we shall treat in our next month's number.

Trade Intelligence.

PAPER-HANGINGS FOR 1881.

MESSRS. JEFFREY & CO.—This eminent firm show a very excellent collection of designs for 1881; there are no indications of any decline from the high standard they have maintained for years past. Mr. B. J. Talbert contributes a magnificent design for a ceiling paper, also a design of oak branches and leaves with squirrels, with appropriate frieze and dado, that well support his reputation. We understand this paper forms a portion of Messrs. Jeffrey & Co.'s exhibit at the Melbourne Exhibition. Mr. Walter Crane's design of the briar rose, with frieze and dado, in the *Renaissance* spirit, is the best we have seen from his brush for some time. Miss Faulkener, Messrs. Wilberfoss, Malins Sharp, and Binyons, all contribute to make the collection one of a very high quality. The colourings are remarkable for their quiet harmonies, and cannot fail to commend themselves to the artistic world as well as to the trade.

MR. JAMES TOLEMAN.—The productions of Mr. Toleman are established in the market by years of trial, and are so well known for their sterling value that we naturally look for high-class productions from his manufactory. The collection for 1881 is a very gratifying one, without adventuring into the region of the "transcendental," Mr. Toleman always gives us legitimate art in his designs, and at a fair commercial value: art that commends and adapts itself to the necessities of our English home life. The collection contains many excellent designs, and gives evidence of careful study and much thought in their colouring—a most important part, if not *the* important part, of

paperhangings. The value of wallpapers in the general scheme of a room's decorations is being realised more and more. The seeker after "good things" at a reasonable price will have no cause to be dissatisfied with Mr. Toleman's productions. We gladly direct the attention of the trade to them.

MR. A. J. DUFF, of Bread Street, successor to Messrs. Corbiere, Son, and Brindle, is showing a good selection of paperhangings for the coming season that cannot fail to elicit a warm response from the trade They are good alike in drawing and colouring. Some capital "Single Prints" are not the least valuable part of the collection. There ought to be no difficulty in making homes bright and cheerful, as all homes ought to be. Our paperhangings manufacturers, by the intelligence and skill they employ on their productions, certainly do their share; and if our decorators would only insist in guiding the judgment of their clients in the selection of the right sort of patterns, we should never be pained by the incongruities we so often see in internal decorations.

Messrs. W. WOOLLAMS & Co. have for years past enjoyed the reputation of producing goods of a very high character and class. There is no falling off in the collection for the coming season. Some of the choicest patterns of last year are reproduced in different combinations with a large addition of new designs, both in embossed flocks and stamped leather papers. The spirit of the age is that of advance, and old firms cannot afford to simply live on their past reputation—they must either keep pace with the times or fall behind. Messrs. Woollams cannot be charged with any lagging in this respect.

IT may interest our readers to know that in the library of Sir John Soane's Museum are upwards of fifty folio volumes of original drawings made by the Brothers Adam. Many of these folios are filled with highly-finished designs for ceilings and wall decoration, drawn to a large scale and coloured, with details given to a still larger scale. There are also some volumes of designs for chimney-pieces, mirrors, and furniture, besides the more strictly architectural plans, elevations, and sections, &c. Every facility is given to students who may wish to refer to or copy from these works.

THE SOCIETY OF ARTS' medals in gold, silver, and bronze, and certificates of merit, will be awarded for specimens of Fine Art applied to industry, exhibited in 1881, by manufacturers, designers, art-workmen, or possessors of such works. The works may consist of illustrations of any or all of the following processes, in combination or singly: Carving in marble, stone, or wood; repoussé work in any metal; hammered work in iron, brass, or copper; carving in ivory; chasing in bronze; etching and engraving on metal—niello work; enamel painting on copper or gold; painting and modelling in pottery; decorative painting; inlays in wood (marquetry or buhl), ivory, or metal; cameo cutting; engraving on glass; wall mosaics; gem engraving; die-sinking; glass-blowing; bookbinding and leather work; embroidery. To all works the name of the designer and art-worker must be affixed. Further detailed rules will be issued later. It is arranged with the council of the Royal Albert Hall, that the place of exhibition for the above-mentioned works will be at the Royal Albert Hall. The time for sending in the works will be published hereafter.

SUNBURY WALL DECORATION.—Decorators from the provinces, visiting the metropolis, should not fail to call at the showrooms of the "Lincrusta Walton Company" (proprietors of the "Sunbury Wall Decoration"), No. 9, Berners Street, Oxford Street, or 7, Poultry, E.C., and inspect the work they produce; it is a welcome addition to the materials placed at the disposal of the decorative artist that ought to find many outlets. We hope at some subsequent date to give a detailed description of this manufacture.

WHITE lead has just recently touched an abnormally low price, it being offered in small quantities at twenty-three shillings, "genuine." The explanation is to be found in the fact that large imports of "foreign" lead of inferior quality have been thrown on the market, and used for the purpose of adulteration with the better kinds. We caution our readers to exercise great care in buying, and to purchase only from houses of established reputation, there being so large a quantity of the adulterated material offered to the buyer as "genuine."

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IMPORTANT.

The Editor will be glad to receive information on all matters of interest affecting the Decorating Trade-Reports of Works, &c., in progress or completed, and will give his best attention to any suggestions made with a view to render the Journal more useful to Art workers.

Any irregularity of delivery or difficulty in obtaining "The Journal of Decorative Art," should be immediately reported to the Proprietors, who will esteem such information a favour, and will give it their immediate and prompt attention.





DINING ROOM

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"LIFE WITHOUT INDUSTRY IS GUILT.
INDUSTRY WITHOUT ART IS BRUTALITY."

TO OUR READERS.

IT is with a feeling of great pleasure we are enabled to announce that the result of our issue of the first number of the "JOURNAL OF DECORATIVE ART," has proved a complete success. The number of subscribers has far exceeded our expectations, and the large proportion of these, who, after seeing the first number, have sent us their subscriptions for the year, is highly gratifying, proving incontestably that the sound practical nature of the matter it contains, is appreciated by those best able to judge of its character. We have also received numerous letters which speak in the most flattering terms of its character and aim, plainly verifying the statements we made in our prospectus, namely, that there was a want of just such a reliable Journal.

While thanking our subscribers for their hearty approval and support, we can assure them our best efforts will be directed to maintaining and improving the character of the Journal in the future.

Extract from the British Architect, January 15th, 1881.

"We have received the first part of a new monthly journal entitled 'THE JOURNAL OF DECORATIVE ART.' It comes with apparently good intention, and with some chance of success, in this overcrowded age. It is produced with good taste; the technical chapters are evidently in hands that know how to instruct."

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.

CHAPTER III.

PREPARATORY PROCESSES.

IT may be well that we take the opportunity here to say a few words in reference to the manner in which the plastering of the walls and ceilings are done (though with very little hope of thereby influencing the trade in order to a remedy), and although not, strictly speaking, a part of the subject we are treating of, yet it is so intimately connected with it and is in itself of such importance that we could scarcely pass it by.

No one having any experience in the interior decoration of buildings will have failed to notice the utter worthlessness of very much of the plastering which now obtains; in fact, this is one of the many difficulties, and not one of the least, the decorator has to contend against, and is, unfortunately, so common an experience that we have almost come to consider the evil as a matter of course, and a necessary consequence of walls being plastered. We have invariably found that really good wall work is the exception and bad work the rule. If we take ninety out of every hundred middle-class houses we shall find that neither the walls nor ceilings are true in any sense; that the lines of the mouldings of the cornice are out of square, and the angles of the walls out of plumb—in and out, to use a homely phrase, like a dog's hind leg; that the surface of the walls is uneven, full of hills and hollows, and if we place a long straight-edge upon the walls it stands upon the tops of the hills and leaves open spaces and valleys between, and here and there special protuberences, which neither add to its beauty or usefulness.

If we examine the enrichments of the cornices—which are cast in lengths, and require great care and nicety in fitting together, and in keeping uniform and level—we find, in the majority of cases, that they are badly joined, uneven, and vary considerably in their projection at the joint where two pieces meet, and thus are made to look clumsy and irregular, which they are. When enrichments are put in their place

the ornament should be so arranged that it will come in equally at each angle of the room. This is effected, when the room is of unequal sides, by paring a little off each length or casting, the paring not being perceived in the finished work, if properly done; or, in some instances, it is accomplished by adding a little, as the case may be; but in very many jobs this necessary trouble is not taken, and the consequence is that we may not, and do not, see two corners alike in the same room. In others, we may see here and there in the length of the cornice of the side of a room, a defect or break in the ornament, this being done in order to make the corners come in right. In this case the workman has cut away one or two lengths of the ornament, instead of taking the trouble to reduce each length of casting, and so conceal the joinings.

In panelled ceilings, when much enriched with ornament, these defects are very common; on the other hand, in first-class work the architect or his deputy designs the ornament and sees to the getting out of the working drawings for the modeller to work from, and looks well after the fixing of the castings in their place, and, as a matter of course, we thus get good work, but in the greater number of instances these precautions are not taken, and the result is that we have, in addition to the evils enumerated above, a jumble of styles in the same room, and even in the same cornice. We may, and do frequently, see Gothic ornament in a Greek or Italian house; and in nine cases out of ten the plasterer does not even take the trouble to make a new mould from which to cast the ornament, but uses just what he has in stock, regardless of rules or propriety, thus we get perhaps one moulding filled with Greek, and the next, in the same cornice Gothic, and the centre flower of any known or unknown style, and so on *ad libitum*. Now this is a state of things that has been going on for years and does not seem to mend. It is disgraceful to all concerned and calls loudly for a remedy. Much of it arises no doubt from ignorance, much from the eager competition of the day, and very much from that slipshod, jerry sort of building resulting from the rage for cheap work. A want of knowledge of the right laws which govern the application of architectural ornament will have something to do with it also. We have abundance of good workmen, but prices are cut down to so low a figure that the contractor cannot do his work honestly, and at the same time make a living profit out of it, therefore the work is done in a scamping manner, and we know, from painful experience, that the result is just such work as we have been describing—unsatisfactory and discreditable to all concerned. The difficulty of doing anything with it to put it right is one that all decorators have to contend with, and it is quite certain that after all has been done that can be done with such walls, they remain a standing reproach both to workman and employer, and a stumbling block to the painter and decorator.

The first coat of paint on new walls should be mixed with raw linseed oil and white lead, the proportion being about three pounds of lead to one pint of oil. The exceptions to the above rule are rare, and consist only of such works as are finished very smoothly and trowelled to a fine hard surface with Keene's or other fine cement. In these cases the surface of the plaster is hard and, of course, non-absorbent, like glass, and if the ordinary oil paint, as described above, is laid upon the cement it will not sink into it as it does on common plaster work, or even Portland or Roman cement, and unless great care is used the paint will skin over and ultimately peel off, make bad work, and be liable to be scratched off with the slightest touch. Consequently the first coat of paint on these hard cements should be mixed about half-and-half, that is, in equal proportions of linseed oil and turpentine, with about four pounds of lead to the pint of thinners, and in laying the paint on the work it should be rubbed as bare as possible. It will be found much better and safer to go to the additional trouble of giving the work one or two extra thin coats of paint, than to lay on too much stuff at one time; two days at least should intervene between each coat, except in finishing with flatting or dead colour. This should always be done on the following day to that on which the last coat of oil colour is put on, as we then get a key, that is to say, the oil colour will not have dried hard, consequently the surface will have a slight tack or stickiness, which softens in some measure when the flatting colour is upon it, and, being in this state, lays hold of the flat colour and the two naturally become as one coat of paint. On the other hand, if the last coat of oil colour is allowed to dry too hard it will not bind the flatting, and, having no binding power in itself, or very little, it is liable to be disturbed by the slightest touch.

(To be continued.)

OWEN JONES AND HIS CONTEMPORARIES.

CHAPTER II.

OWEN JONES.

THE subject of our notice was, as his name implies, of Welsh parentage, though a Londoner by birth, being born in Thames Street, City, where his father carried on the business of a fur merchant. He was born February 15th, 1809, and losing his father at an early age, was placed by his guardian at the Charterhouse, from whence he was subsequently removed to a private school, the intention being that he should prepare for the Church.

Instead of this, however, he was at the age of sixteen





W.S.

DECORATION FOR DINING ROOM DOOR

placed as a pupil with Mr. Louis Vuilliamy for the term of six years. During this time he studied at the Royal Academy and became very proficient as a draughtsman. At the expiration of the six years he travelled on the Continent, visiting Paris, Milan, Venice, and Rome.

In 1833 he started on another tour, this time extending his explorations to the East, visiting Greece, Alexandria, Cairo, Thebes, and Constantinople.

It was on this journey he received those powerful impressions of Moresque forms that permeated his subsequent work, and laid the foundation of his theoretical scheme of ornamental art which he embodied in his Propositions. In 1834 he visited the Alhambra at Granada, and spent a long time in the mastering of its spirit and details. In 1837 we again find him at Granada, this time for the purpose of verifying and authenticating the drawings that he was making for his great work on the Alhambra, which he had commenced in the preceding year on his return from the East. In the prosecution of this work, which was commenced in 1836 and not completed till 1845, he spared neither time, trouble, nor means, and it remains a monument to his industry and skill, though financially it was a failure. He sold a property in Wales left him by his father, and devoted the proceeds to the work of producing the book, and it is to be deplored that, from a pecuniary point of view, it only brought him anxiety and loss. In 1842 he produced his designs for Mosaic and Tessellated Pavements, and in 1846 he published his Polychromatic Ornament of Italy.

He had now made for himself a recognised position in the world of Decorative Art, and in 1851 he was appointed to superintend the works of the Great Exhibition, and took a prominent part in the decoration and arrangement of the building.

The year 1852 saw him again in the press. This time he was promulgating his theories in an "Attempt to define the principles which regulate the employment of colour in Decorative Art." He later on expounded in lectures the drift and bearing of his principles. About this time, too, he contributed to a small work that had a brief existence, *The Journal of Design*, and his writings are marked by great lucidity and terseness. In this year (1852) he was appointed a director for the decoration of the Crystal Palace, and designed the Egyptian, Greek, Roman, and Alhambra Courts. Those who are familiar with these Courts, and remember the original structures, will readily acknowledge the labour and skill which he bestowed upon them. In 1856 he produced the work with which his name is more particularly identified, "The Grammar of Ornament." It was the first attempt made to cover the same ground, and though it has had many imitators since its appearance, it has maintained its position unimpaired by time, subsequent discoveries, or rival productions. The student of Decorative Art who has thoroughly mastered its contents, is well grounded in the characteristics of the different schools, and should be well able to discriminate between the conflicting styles—a faculty not so common as we should expect, if we are to judge by the examples we see produced from day to day. In 1867 he issued his "Examples of Chinese Ornament," the last work of any importance that came from his pen.

He received the gold medal of the Institute of British Architects, of the Paris International Exhibition, 1867, and of the Vienna International Exhibition of 1873. He died April 19, 1874, at his residence in Argyll Place, and was buried in Kensal Green Cemetery.

In endeavouring to form an estimate of the work Mr. Jones accomplished, we have to take into our calculations not only the quantity of work which he personally got through, but the more important consideration of the *quality* of such work. In addition to the literary and artistic work enumerated above, Mr. Jones had a good private practice as an architect. He was also extensively employed in designing for wall papers, carpet manufactures, and other art industries. This, too, at a time when there was a strong professional feeling that it was *infra dig.* for an architect to descend to such "minor details." He took the lead when the industrial arts in this country had touched the lowest deep of vulgarity and imbecility in design and colour. He endeavoured to solve the difficulty (and in a large measure was successful) by laying down rigid principles, which served to check the latitudinarianism of the decorators of that day, and to bring their powers within reasonable discipline and control. He further aimed at making common sense the basis of all design, or in other words, that whatever the object to be decorated, its *fitness* for its purpose should be the paramount and guiding consideration in the mind of the artist.

We shall defer to our next issue the consideration of the works of Mr. Jones, and shall then discuss some of the leading principles which he laid down as an imperative and necessary condition of all good art. There have been many attempts made since the publication of these Propositions to propound new theses, but they have invariably eventuated in paraphrases of the original ones, though they have been proclaimed to the word as the brilliant products of latter day genius.

Mr. Jones was essentially an artist. While others, with not a tithe of his artistic ability, were "making" success in "leaps and bounds" (that is, success as the world judges), by the mere force of self-assertion and great business tact, Mr. Jones was quietly laying the foundations for others to build upon. Had he have been more of a "business" man, we who have "entered

into his labours" would probably have had to deplore the absence of many treasures we now possess; as it was, being an artist, his art was the dominating and supreme consideration with him. It is to such men, in whatever sphere they move, or in whatever direction their power developes itself—moral, physical, or mental—that the world is indebted for the progress that has been made—men who are sensibly conscious they have a work to do and a part to play, and who consume their life and energies in the accomplishment of their aims whatever they may be.

(*To be continued.*)

ON THE MATERIALS AND TOOLS USED BY THE HOUSE PAINTER AND DECORATOR: THEIR PROPERTIES, COMPARATIVE VALUE, AND USE IN THE TRADE.

CHAPTER II.

"DISTEMPER."

TEMPERA painting, or, as it is more commonly called, "distemper," has been used in all ages by civilised peoples wherever decorative art has been practised, and is a most important decorative agent or medium.

It has many advantages over oil paint, being less costly, allowing greater facilities in its application, is more expeditious in operation, and its effect when properly done is much more pleasing to the cultivated eye and taste, there being an absence of glare, gloss, or glaze.

The Egyptians worked almost exclusively in distemper, and the coloured fragments remaining from their temple-palaces are in many instances as clean and bright to-day as they were when executed, three or four thousand years ago. It is said that many of the old masters painted their pictures first in distemper and then oiled them, the distemper absorbing the oil and turning the water colour into oil paint. Whether this was so or not, we do know that there is a school of painters in our day who adopt this practice to a certain extent, and, they contend, with great advantage to their pictures; indeed, many of the published guides to the art of painting in oil, advocate this process in the early stages of the work. Water colour painting is, of course, essentially a distemper process in which body colours (that is, colours mixed with an opaque white pigment) are used.

Distemper has become one of the most important mediums in use for decorative purposes, particularly valuable for walls and ceilings; its price also being much below the cost of oil paint enables it to be used very extensively for that purpose, and admits of its being re-done oftener than if oil paint were used, an important consideration from a sanitary point of view.

As we shall treat of the processes used in distemper painting in our articles on "Decorative Processes," we shall here simply direct attention to the best pigments and chemical products for use in distemper work.

The material that has been almost universally used hitherto, has been that well-known carbonate of lime yclept "whiting," a preparation of chalk made by grinding and repeated washings, in order to separate the coarse from the fine, the soft from the hard, until whiting of various degrees of fineness is obtained.

The coarser kinds are used for chemical and manufacturing purposes, and the finer kinds for the colouring or laying of the grounds of wall papers, and in mixing with all the solid colours in printing them by wood blocks.

The best washed whiting, or Paris white as it is termed, is a finely levigated whiting, almost an impalpable powder, and invaluable for the production of good work. It is extensively used by the decorator and the carver and gilder.

White lead and other deleterious pigments and compositions have been used to distemper work, but these mixtures are fraught with great danger to health, both to the workman, and to those who have to live in the houses where they are used. Such compounds ought never to be employed *except* as oil paints.

Of late years many substitutes have been tried in order to avoid the use of white lead, the most successful of which are the silicate paints. Of these, however, we have as yet had experience in actual use of only one, "Duresco," or water paint. The other forms of silicate paints we shall notice in some future article, when we have given them a fair trial.

Duresco is invaluable for use on inside work, it is non-poisonous, and can be washed when soiled, a most important quality not possessed, so far as our experience goes, by any other distemper, (ordinary distemper if soiled cannot be cleaned, but must be re-done) and although the Duresco is mixed with water it has the singular property of being impervious to water when dry on the wall. It is equal or superior in appearance to any other form of distemper, and on account of its non-absorbent properties, and its imperviousness to all deleterious gases, it may be used with confidence as a sanitary agent as well as a decorative medium; it is in itself perfectly innocuous and inodorous, thus forming a very useful and healthy wall covering for bedrooms, staircases, and corridors. For high class work the walls should be prepared with an ordinary lining paper, and when used on this ground a beautiful uniform surface is the result.

Duresco is supplied in the form of a paste, in almost any colour or tint, and, of course, the workman can produce any shade or tone by combinations of these one with another; it is prepared for use by thinning to the proper consistency with warm water. Speaking from actual experience, we can confidently recommend this preparation to the trade as a most valuable decorative material.

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY.

UNDER the above title we purpose giving a description of the science and art of heraldry, having in view the fact that at one time or other the decorator and art worker have occasion to work out—in their various ways—coats of arms, crests, and other heraldic devices. For this reason, apart from its literary and romantic aspect, we hope to make these chapters interesting not only to the artist, but to the general reader.

The origin of the science of heraldry is enshrouded in some obscurity, although we know that both the Greeks and Romans employed heralds (whom the Romans called *feciales)* as sacred and privileged persons; thus we see that their origin and use is of very high antiquity. The herald was an officer whose business it was to register genealogies, adjust armorial ensigns, regulate funerals, and (anciently) to carry messages between princes, and proclaim war and peace.

"When time shall serve, let but the herald cry, and I'll appear again."—*Shakespeare.*

"Search the herald's roll,
Where thou shalt find this famous pedigree."
Dryden.

Heralds were anciently called Dukes at Arms, probably from their office being to carry messages to the enemy regarding peace or war, to denounce war, or proclaim peace. Hence the persons of heralds were deemed sacred by the law of nations, and were received and protected by belligerent powers, as flags of truce are in the present day. We find that the ancient corporation of the Heralds' College was first established by Richard III. in the year 1483 or -4, and was situated on St. Bennet's Hill, near St. Paul's, in the city of London. The three chief heralds are called Kings at Arms—of which Garter King at Arms is the principal, instituted by Henry V., his office being to attend the Knights of the Garter at their solemnities, and to marshal the funerals of the nobility; to grant supporters to the nobility, knights of the royal orders; and to carry the Garter to Kings and Princes (to whom it has been granted) beyond the sea. Clarencieux King at Arms, ordained by Edward IV., was so called from the Duke of Clarence, to whom the office first belonged. His duty is to marshal and dispose the funerals of the inferior nobility—as baronets, knights, esquires, and gentlemen on the south side of the Trent. Norrey King at Arms, holds a similar office on the north side of the Trent. These two last were called provincial heralds, because they divided the kingdom between them into provinces. They are entitled to bear arms in virtue of, and peculiar to, their office, which are engraved on their respective shields, and their badges are worn around their necks—that of Garter being suspended from a gold chain. They also wear tabards, in form like the dalmatic or surcoat worn by kings and emperors at their coronation, and by the dignitaries of the Romish Church. They wear, in addition, a crown or circle of gold, inscribed with part of the first verse of the 51st Psalm ("Have mercy upon me, O God, according to thy great kindness") in allusion to the dangers they might incur in going amidst enemies to treat of peace. The crown is surmounted by sixteen upright leaves. This coronet resembles that of our present dukes. Anciently, the Kings at Arms were required to wear their crowns on the four high feasts of the year—viz., Christmas, Easter, Whitsuntide, and All Saints' Day—when their attendance was required near the person of their sovereign.

Besides the Kings at Arms, there were six subordinate heralds, *i.e.*, York, Lancaster, Chester, Windsor, Richmond, and Somerset. To these were added on the accession of George I., one herald (created), called the Hanover herald. The books, archives, manuscripts, &c., deposited at the Heralds' College, fortunately escaped without harm in the great fire of London; thus many important documents were saved. Our space will not admit of an extended notice of the duties and privileges of heralds, or we might fill pages with interesting matter, but we hasten to clear up the path to the practical part of our subject.

Heraldry is the science of armorial bearings, or that department of graphic and literary knowledge which defines the art of blazonry, the laws of rank and precedency, distinction of houses and pedigrees, titles of honour, &c. These form a most interesting subject for investigation, and have employed the pens and pencils of some of the ablest literary characters of the middle ages, and are still a matter of moment in almost every civilised nation of modern times. Much was written on this subject before the invention of printing, but shortly after that event, appeared the "Boke of St. Alban's" (so called because printed in the monastery of that name, in 1486, and treating of "coot armuris" (coat armour), or heraldry, in which the armorial bearings are stained with inks of different colours, according to the blazon. This literary curiosity clearly sets forth—in the rude language of those remote times—the four ways or sources from whence coat armour was assumed—the following being a literal transcript:—

"The first maner of wyse we beer (bear) of owre modyer "(mother), or of owre predycessoris, the wych (which) be owre "owne armis. The secunde maner we hauve by owre merittys "(merits), as verey playnly it appeareth by that moost nobull man "Prynce Edward, after the takyng of Kyng John of Fraunce, in "the batell of Poyters. And on the soame maner of wyse myght "a poore archer hauve taken a prynce or sum nobull lorde, also "the armis of that prysoner, by hym so taken, rightwisly he may "put to hym and to his hayris. On the thirde maner of wyse we "have those armis whych we beer by the grauntyng of a prynce "or of sum other lordys. The faurith maner of wyse, we hauve "thoas armis, the wych we take on owre owne *p'pur auctorite* "(authority), as in theys days opynly we se. How many poore "men by theyr grace, fauoure, laboure ar mad nobull, sum by "theyr prudens, sum by theyr manhud, sum by theyr strength, "sum by theyr conig (cunning), sum by uder virtys (virtues)," &c.

One writer of great authority attributes the origin of coats of arms to the early Germans. These people were in the habit of decorating their shields (as many savage tribes do now) with devices calculated to strike terror into their opponents. Others painted the symbolic records of their prowess and great deeds in battle, and to give more effect to the figures, they painted them in different colours, from which practice arose the art of blazonry and the occupation of the herald. Chosen colours were wrought into representations of acts of heroism; coats of arms, pourtrayed on the shield, were to distinguish from each other warriors, who were cased completely from head to foot, with their visors down; and hence was at length reduced to regulations and systems what had been begun without rule or art.

The ancient Germans rushed on to battle with loud cries, applying their shields to their mouths in order to cause their voices to sound louder by repercussion on the hollow of the shield, and from this usage sprung the "*cry-d'armes*" of the middle ages, which was supposed to incite to valorous deeds. "*Montjoie St. Denis!*" was the celebrated cry of the Franks. Every knight who had a banner had a cry of his own peculiar to himself and the troops under him, but all these cries were discontinued on the demise of the feudal system, and the establishment of standing armies.

The practice of using personal coats of arms became much in vogue in the reign of Charlemagne, and were much encouraged by the splendid victories he achieved. But it was during the reign of Hugh Capet, the first king of the third dynasty of French monarchs, and towards the close of the tenth century, that heraldry received the most striking advancement, from the improvement of blazonry, which was brought to great perfection by the French, which fact accounts for our heraldic terms being expressed in the French language.

In England, the more grotesque bearings of the German chiefs, as copied by the Saxon invaders, had been generally adopted, and when the Heptarchy was established, each principal had its own peculiar device which was borne upon its banner. The cross and five martlets were then the arms of England, and though never used by the Norman kings, were nevertheless not allowed to be worn by a subject, as appears from the trial of Thomas, the third Duke of Norfolk, and his son Henry, Earl of Surrey, who were convicted of high treason; one of the charges being that they had borne on their shield the arms of Edward the Confessor, and thereby manifested their intention of aspiring to the throne of England.

The Normans brought into England at the Conquest the improved system of heraldry as practised by the French. The Conqueror and the victorious soldiers held tilts and tournaments in order to improve themselves in all martial exercises, and at their gatherings were exhibited many improved and elegant examples of blazonry. The arms of the Conqueror were the arms of Normandy, and consisted of two lions, which had been borne by his great ancestor, Rollo, when he wrested the dukedom from Charles the Simple, and were adopted by his successors, the Dukes of Normandy; the number was not increased until the time of Richard I. (Cœur-de-Lion), who made them three by adding the lion of Poictou or Aquitaine, which territories he inherited from his mother, Queen Eleanor; and from that time to the present the three lions (though originally French) have continued to be borne by the kings of England.

OUR ILLUSTRATIONS.

THIS month we give two double-page examples of Decoration for a Dining Room, the one showing the side of a room with dado and frieze, the other a Door and architrave. It will be understood that the frieze is placed immediately under the bottom member of the cornice. The style is the Renaissance, and may be worked in "relief" or "flat." As will be evident, the ornament on the Door lends itself to either treatment; if used in relief it may be pounced as hereinafter described, and pencilled or stencilled.

The Door design will be best worked in low toned colours. The ground colour for the panels and flat of architrave may be of a rich dark golden brown inclining to yellow, and may be made with yellow ochre, burnt Turkey umber, and pure Indian red, with a slight dash of green, in proportions as may be suitable. The stiles and part of the mouldings of the architrave may be of a dark rich olive green, made from black, yellow ochre, and a little burnt umber, or Brunswick green and burnt umber.

Part of the mouldings may be run in pure black. The panel colour should be dead, without gloss, but the stiles may be got up in spirit colour, and varnished,

which wears better, and forms a pleasing contrast to the "dead" colour of the panels. A very successful manner of treating the ornament, is to gild the whole of it, and then outline and etch it with black. If carefully and well done, it will have an exceedingly rich, quiet, and good effect. Part of the members of the mouldings may also be gilt. A good effect may be got by painting in the ornament with a lighter tint of the panel colour, and then outlining and etching it with black, or deep chocolate, which is softer in effect; or, the ornament may be black, and outlined and etched with gold.

The wall design may be done, so far as the woodwork and dado is concerned, with the same colour as that used for the door. The wall colour may be of any suitable colour that will harmonise with the colour named for the door and dado, and which is at the same time suitable for a background for oil paintings. For large picture galleries, dark maroon is a favourite colour, but we do not think it suitable for a dining room, and would recommend a dull neutral green of middle depth. What we mean by this kind of neutral colour, is one that in itself when viewed without contrast with other colours does not show any trace of green, but when contrasted with other colours, with gold frames and pictures, shall have a perceptible green hue. This colour is made with burnt Turkey umber, Indian red, Brunswick green, yellow ochre, and white. Of course, the tone of colour may be modified and altered according as one or the other of the colours named predominates. We have found in practice that we can thus produce wall colours which contrast harmoniously and favourably with almost everything, either on the walls or in the room. The frieze should be painted in tones of dull buff, with black and maroon lines; the background of panels stencilled in dark warm greenish grey, and heads and front outlined with black.

We have given an alternative design for the dado of dining room, either of which might be used with the door. Our readers will perceive that the colours enumerated are not very numerous. We do this advisedly, as from experience we have found that the most harmonious and varied effects can be produced from a very simple and limited palette. A little gold might be judiciously introduced into the cornice immediately against the frieze, and on the picture moulding underneath, though the lavish and excessive use of gold which is so common, is much to be deprecated.

DESIGN FOR HALL.

We publish with this number the "Hall Design" advertised to appear in our January issue. At the last moment, owing to an accident in the printing, we found ourselves placed in the position of having to choose between two courses—either to send out an imperfect print, or keep it back and apologise to our subscribers for the apparent breach of faith. In the interest of our readers and our own reputation we had no alternative but to adopt the latter course, and we trust the result will justify our action.

ILLUSTRATIONS FOR MARCH NUMBER.

In our March number we shall give a double-page design for a Drawing Room Ceiling, in character with the design issued in January, also two designs for Friezes, drawn to large scale in the Renaissance style.

Art Notes.

THE GROSVENOR GALLERY EXHIBITION.

The Exhibition at the Grosvenor Gallery presents no features in the pictorial department that call for special comment from us. The collection is a good average one, and gives evidence of some sterling hard work. The attractive portion of the Exhibition, from the standpoint of this journal, is to be found in the Vestibule and East Gallery.

Mr. H. Holiday sends no less than nineteen examples of his work, almost all of which are marked by high executive skill and power of drawing.

305, "Children Dancing," by J. H. Pollen, is a "sketch for part of a wall painting." While the figures are individually well drawn and carefully coloured, the *tout ensemble* is disappointing, the figures looking stiff and stilted. 306, by the same artist, is a design for painted ceiling at Belton Hall. The main lines are not graceful, and the medallions in the corners give one the idea that they are an afterthought to fill up an awkward space, there being no visible connection between them and the other portion of the ceiling.

316 is open to the criticism that when *in situ* the detail which constitutes its beauty would be all lost.

Mr. W. T. Muckley is *facile princeps* at flower painting, and his contributions to the Exhibition are four gems in their way. 309 is a "Decorative Panel," in which the pomegranate is the *motif*. 315 is a similar treatment of the "Maltese Orange." The artist has subordinated his powers to produce a decorative effect, and the result is a complete success. The fruits are painted in natural colours on a flat gold ground, and edged with a gold outline that projects itself from the surface of the panel; the result is very effective indeed. 367, "Orange Blossoms," and 368, "Clematises," in the East Gallery, are by the same artist, and treated in a similar manner to those we have just enumerated, and are, if possible, more beautiful than the fruit designs. In each case the fruits and flowers spring from vases.

The contributions of Mr. Walter Crane are numerous and varied, tho' all marked by his own individuality of design and colour. Of those hung in the vestibule, we decidedly prefer the "Nursery Rhymes" to their more ambitious companions, "The Seasons," and "Morn, Noon, Eve, and Night." Mr. Crane seems most at home in the pourtrayal of scenes of childish mirth and fable than in the allegorical subjects, and his most successful contribution to the Exhibition is 336, "The Goose Girl;" a rustic maiden and her youthful swain are absorbed in each other's society, when, just at a critical moment, a gust of wind, of which there is plenty in the picture, carries off his soft cap; the maiden addresses the wind, and breathes a hope that her youthful admirer may not recover his cap till she has had time to adjust her hair and robes. The spirit of the picture (which is a large one) is very good. You can feel the wind as it rushes across the country, stirring up the geese and sweeping thro' the trees in a wild uncontrolled manner that winds do sometimes adopt.

332 and 334 are cartoons of designs that have been worked up in wall papers. "The Sleeping Beauty" and "Queen of Hearts," "Boy Blue," "Bo-Peep," and "Song of Sixpence," and with which we are all familiar. One can only regret that there is such a discrepancy between the wall papers and the originals. 348, by the same artist, is another subject that has been disseminated through the country. As seen in the Exhibition, it is a very fine example of drawing and design, but criticised from the standpoint of its purpose—that of a wall paper—we confess to disappointment in it. It is too good for repetition; as a panel decoration for once or twice repeating, it is excellent, but as a surface decoration it is too busy and pretentious, and lacks repose — the very foundation of successful wall coverings. 352 and 357 are two designs conceived in the same spirit (357, however, being much more graceful in its dispositions and details than 352,) to which the same criticism does not apply, each of them being designed for screen decorations. Mr. Crane sends a large number of other designs, all of them interesting and instructive.

The attraction of the Exhibition is to be found in the works of Mr. Burne Jones. The mention of Mr. Jones's name in certain circles is immediately provocative of a warm discussion and strong expressions, but however much his critics may differ with his renderings and conceptions none can deny him the possession of wonderful powers, both of drawing and colouring. In the collection gathered together in this gallery, we see at once the wide range he can cover, and the fertility of his resources, his strength and his weakness. In (325, 329) designs for the "Romance of the Rose," and (338, 342) "St. Matthew" and "Elijah," we see the two extremes of his gifts. The two former designs being perfect embodiments of grace, while the two latter are splendid types of strong rugged manhood. It is only a man sure of his position, or indifferent to criticism, that would venture to paint such a picture as (326) "A Sea Nymph" is; whilst the *technique* displayed is such as few could surpass, the conception and rendering of the picture is repellent. (328) "A Wood Nymph," on the other hand, is all that could be desired. (344, 347) Two small designs, drawn for execution in metal, show Mr. Jones in his strength. 344 represents the "Nativity," and 347 "The Intombment of our Lord," and are both departures from the stereotyped renderings of these subjects. 353 is one of a group of large designs for stained-glass windows, in which the peculiar sad-visaged maidens, which have become identified with Mr. Jones' name and work, are prominent. The subject is the "Judgement," and if the faces are to be the index of which are on the right and which on the left hand of the Judge we admit our inability to decide. The most important work of this class is (355) "Paradise," a design for a window. We confess to a feeling of disappointment in all the renderings of the imagery of the Apocalypse we have seen. The grandeur of the words of the inspired exile of Patmos lose their beauty and become common place when it is sought to put them into graphic delineation, and this feeling operates against the design now under consideration, notwithstanding its executive beauty both in drawing and colour. The exhibition is one of special attraction to the decorator, and should not be missed by any possible means. It remains open till the 31st of March.

The Manchester Corporation have made a move in the right direction, although it must be confessed they have not moved very far, and we can hardly accept the interest awakened in the present small Loan Collection from South Kensington as at all a criterion of the interest that might be evoked if the collection were extended and made a more popular one. The examples gathered together, while very excellent in their way, appeal only to a small section of admirers, and we trust that having once put their hand to the plough the Corporation will not turn back, but go forward until they have placed at the services of the Manchester public an Art Museum second to none in the kingdom, out of London. The public spirit of Manchester is traditional, and the proper cultivation of a sound art feeling is of vital importance to the industries of the place. The Exhibition consists of a screen of drawings, etchings, chromo-lithographs, coloured photographs, and casts; and on a small table, a limited but choice selection of metal work — *repoussé*, chased, and damascened. They are well worth a visit, and cannot fail to instruct as well as interest.

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*ENCAUSTIC PAINTING.—Count Gaylus, a member of the French Academy, many years since, after trying all the different possible ways of painting in wax, hit upon a simple method, in which the head of Minerva was painted, and much admired at the time. He rubbed cloth or wood with beeswax, and after rubbing this over with chalk or whiting, laid on colours mixed with water, and when the picture was dry, put it before a fire, whereby the wax melted and absorbed the colours. The effect produced was singular, as the picture was without gloss, and the colours would bear washing and were not liable to injury. Encaustic painting is said to be susceptible of all the freedom and delicacy of any other painting whatsoever; you may leave off or cherish your work at pleasure; you cannot fatigue your colour, nor are you subject to the inconvenience attending oil painting of waiting till it is dry. All the effect and sweetness of oil painting (it is said) may be obtained. The colours are not liable to fade or change, no damp can affect it, no corrosive will hurt it, nor can the colours crack and fall off the canvas. As most colours used acquire a deeper hue when moistened, and some deeper still, when mixed with wax, a guide for re-touching is necessary, as in fresco. When the picture is wet it appears nearly what it will be when fixed, when dry it looks like distemper. It is fixed by heat on small surfaces by placing them before the fire, but on large surfaces braziers are used. There is no danger in applying heat over and over again, but this must be done moderately and gradually, so that the work can be easily re-touched.

The characteristics of encaustic painting are thus summed up: First, the colours have all the airiness of water-colours, combined with the strength of oil, thus escaping the defects of both; second, a picture may be looked at in any light, the colours are fresh and vivacious, without being glaring; third, the colours are firm, without being brittle, and scratches may be easily repaired.

We have not space for what our author says about mosaic, but with regard to the introduction of oil painting to mural decoration having in a great measure superseded mosaic, fresco, and encaustic painting, he says: "Previously painters were chiefly occupied in decorating the walls of public buildings, and were restrained in the treatment of their works within well defined limits by architectural conditions and method of execution. The introduction of oil painting, however, gradually changed the whole character of pictorial art, for it rendered the painter independent of the architect, and released him from these limitations;" and further, he remarks, with truth: "The more the influence of architecture over the painter waned, the greater became the excesses of the painter in composition, colour, and effect, till at last the variety of ways in which oil colours could be used dissipated all system in their use, as well as any common tendency and grand aim in art," and says "a return to mural painting and the simple style of design and execution which it involves would be highly beneficial, and would not only raise the style and aim of pictorial and ornamental art, but improve the practice of oil painting also."

Chantrey hated allegory, and I think most people will agree with him it is a clumsy way of telling a story. "You may," he says, "put a book on the lap of one female, and call her History, and a pair of compasses in the hand of another, and call her Science, and a trumpet to the mouth of a third, and call her Fame or Victory. But these are imaginary things we have nothing to do with, and, dress them out as you will for the eye, they can never touch the heart. All our feelings are with men like ourselves. To produce any real effect we must copy man—we must represent his actions and display his emotions."

Mons. Chevreul, the eminent French chemist, is making known a new series of observations on the vision of colours. An eye which has looked at red for a long time becomes blind to green and is disposed to see everything red; a little while after it becomes blind to red and sees everything green. It is for this reason that a buyer, after examining a series of pieces of red cloth, finds the last less pleasing than the first. The seller would prevent this by placing before his customer some green cloths on which the buyer's eyes might occasionally rest. For the same reason M. Chevreul protests against the common practice of painting garden seats green, as it destroys the effect of the verdure of the vegetation. Such seats, he says, should be painted the colour of wood. We perfectly agree with M. Chevreul in this matter. We have always deprecated the use of green paint in gardens, vineries, or, in fact, in any situation where natural green comes in contact with the paint. No doubt the practice has arisen from the great fondness for green which seems to be almost inherent in human nature, but in this case we can have too much of a good thing. We have seen this feeling carried so far that the interior of dwelling rooms have been painted a mixed tint of green, the effect being, that when we looked out of the window on to the grass and foliage of the trees, the natural green looked dull and faded. Now the reverse of this ought to be the case; our rooms which look upon nature's greenery should be painted of such a hue as will intensify and freshen the look of grass and shrubs; if this be not so we lose that keen sense of pleasure to be derived from a judicious contrast of colour. Bad taste, or, rather, a total want of that quality is shown in these cases.

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* *Mural or Monumental Decoration*, by W. Cave Thomas.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

BY THE EDITOR.

CHAPTER III.

Graining Oak in Oil.

IT must be understood that oak wood has two distinct characteristics or markings, the first being the grain of the wood, which is formed by the pores, and which always runs the lengthway of the plank, and of the tree also. This is fine or coarse, according to the particular species of oak tree from which the plank has been cut. The closer the grain the harder and better the wood—English oak is fine in the grain. The second characteristic is the figure or markings, technically called "the dapple," "the veining," and the "lights of oak"; these latter markings almost invariably run across the grain, and, as a rule, have a silvery reflection and stand out lighter and brighter than the grain. Sometimes they have a light silvery edge and dark centre. Different kinds of oak vary very much in this respect, the foreign wood being coarser than English. Dantzic oak, for instance, is exceedingly coarse or open in its grain or pores, and the "lights" or "figure" are, as a rule, in broad thick lumps, without much grace or beauty of form, while the figure in English oak is arranged or flows in graduated curves, having a peculiar beauty of its own.

Before proceeding further it will be advisable to describe the best method of preparing the grounds for oak graining. As preparing painted work for graining upon, or any other purpose, will come under the head of our articles on Preparatory Processes, we shall here merely describe what colours to mix the various coloured grounds for different kinds of oak. The finishing or ground coat of paint should be mixed with three parts oil to one part turpentine. This proportion of oil causes the paint to dry with a hard gloss, over which the graining colour works freely and makes cleaner work than if it were without the gloss.

Light oak or new oak, commonly called wainscot.—The ground colour for this shade of oak should be of a light creamy buff, made from Oxford ochre, white, and a little Venetian red. Some grainers like a white ground for this very light oak, but this we think a mistake, as it causes the graining to have a raw, dirty, cold look, and it never mellows down as it does on the coloured grounds. For a middle shade of oak the ground should be made from white, Oxford ochre, Venetian red, and a little burnt Turkey umber; and for dark oak with white, burnt umber, Venetian red, and Oxford ochre, or orange chrome. All these colours may be modified by admixture with black, to a degree according to whether the oak when finished is required to be warm or cool in tone. And here we may note that the colour of the ground work is of vital importance to the effect of the work when finished. Many grainers do not care much about the colour of the ground, so that it is light enough, as they depend upon the glazing colour to bring the work up to the required tone or shade. This, we are quite sure, is a mistake, for if two panels are grained, one on a white, or nearly white ground, and the other on a rich coloured ground, the former cannot by any amount of glazing be brought to the same richness of colour as the latter, therefore, it is the wisest plan to work upon ground colours which are best calculated to add to the beauty of the work when finished. The contrast also between the graining colour and the ground should never be violent; when it is so, the work has a staring vulgarity about it, which is very undesirable and in bad taste. The figure or markings stand out so prominently that all flatness and repose is destroyed. This class of grainers are fond of bright chrome yellow grounds, and of glazing their work with burnt sienna, thus causing it to look fiery red or "foxy," and, as a matter of course, ugly and vulgar. The grounds for graining upon should always be thoroughly dry and hard before commencing the work of graining; if it is not so, it is apt to reeve or curl in the act of figuring in the lights, and when the work is varnished these marks show a dirty, rough edge, which is very objectionable in the finished work.

In the mixing of oil graining colour there are two or three things necessary to be noted in order to their answering the purpose intended. In the first place, the colour should work clean—technically, "rub in clean"—and free. It will often happen that the graining colour will work stiff, and in this case cannot fail to make dirty work, and will occupy much more time rubbing in than if the colour were properly mixed; this arises from the difficulty there always is in making it spread evenly and uniform in depth of tone. Oil graining colour requires also to be megilped—that is to say, oil colour alone will not retain its form when combed, the marks made with the comb in imitation of the grain of the wood will run one into the other and the grain be obliterated. To prevent this running, the colour requires to be megilped, so that the comb marks will retain the exact form as left by the comb. This is accomplished by various means, amongst which may be named the ordinary beeswax of commerce, soft soap, lime water, whiting, and pure water. When beeswax is used the best means of dissolving it is to cut the wax into shreds or shavings, these are put into a suitable pot or can (earthenware or tin will do) half filled with pure linseed oil, into which a red-hot poker, or other piece

of iron, is plunged and stirred well; this will dissolve the wax thoroughly and amalgamate it with the oil. When the wax is all dissolved the vessel should be filled with either oil or turpentine, which still further dilutes and mixes the wax with the oil, and seems also to prevent its congealing, so that it may mix with the graining colour thoroughly. This is important and should be seen to properly, or else the wax is apt to remain in lumps when mixed with the colour, and when the graining colour is spread upon the work in graining the wax will be spread unequally and will not harden, and, in fact, will not dry in parts, to the manifest injury of the work; so that it is absolutely necessary that the wax should be thoroughly assimilated with the graining colour, in order to produce good work. If soft soap is used, it should first be thoroughly worked up (or mixed) on a pallet or board with either whiting or patent dryers, by this means we break up the soap and amalgamate it with the dryers, and it may then be gradually thinned and tempered with boiled oil, and in this state there will be no difficulty in mixing it thoroughly with the graining colours. Another method, when using the soap, is to break it up in water to a thick froth or lather; in this state it may be beaten up and thoroughly mixed with the oil colour. When lime water is used, about two pounds of slaked lime should be thoroughly mixed in a paint can, or pot, full of water, and the lime allowed to settle; a portion of the lime water may then be added to the graining colour, and the two well stirred together until they are thoroughly amalgamated. If whiting be used for the purpose, the whiting should be ground in oil and then mixed with the graining colour. As a matter of course, some grainers like one and some another of the above described megilps. The wax, however, is the simplest and most effectual for the purpose, but there are grave objections to its indiscriminate use. One of these is the fact that it causes the grain to stand up too high above the surface of the work, and as the natural grain of the oak sinks below the surface of the real wood, it follows that the less the grain is raised in the imitation the nearer it will be to the real. This raised grain is also objectionable because it destroys that flatness and equality of surface so evident in the real wood. Soap, which in working has a medium degree of elevation of grain, is very objectionable in use, inasmuch as it is liable to cause the work to crack after it has been some time varnished and become hard, and it is doubly objectionable for use on outside work, as the frequent variations of temperature soon affect all grained work in which soap has been used, and are a fruitful source of cracking and blistering of the paint. Lime water has also a tendency to cause the varnish to crack. On the other hand, whiting, when used in oil graining colour, although it has the same effect as the wax in causing the grain to stand up too high, also makes it work spongy and impoverishes the colour, for the moment whiting is mixed with any semi-transparent colour, such as Vandyke brown, burnt sienna, &c., their purity and richness is destroyed. On the whole, we have found in practice that a careful use of the wax megilp is the best, if care is taken only to put into the graining colour just as much as will make the colour stand as left by the comb.

The most useful pigments for mixing oak graining colours are raw and burnt Turkey umber, Oxford ochre, Vandyke brown, and burnt sienna. The first three, with the addition of ivory black, are, in our opinion, all that are required for mixing any shade of graining colours. For light oak or wainscot graining colour, mix two-thirds linseed oil with one-third turpentine, and add a little Oxford ochre and raw Turkey umber in sufficient quantity, according to the shade of oak required and amount of stuff mixed. No rule of quantities can be laid down here, inasmuch as they must be regulated by the grainer, according to to the depth of his ground and the character of the work, at the time of mixing and using. Terebine or liquid dryers should now be added, the quantities being governed by the fact as to whether the colour is required to be quick or slow drying. A safe and efficient quantity to use—that is, if the liquid dryer is of the best quality—is about half an ounce to a pint of colour. This will cause the colour to dry in about seven or eight hours, but twice the quantity may be used with safety if it is required to dry very quickly. Sugar of lead ground in oil may be used as a dryer for graining colours, but the liquid dryer is more convenient. Many persons use the ordinary patent dryer, which, if used in sufficient quantities, will also act as a megilp; but we altogether object to its use, as it not only injures and impoverishes the colour but causes it to appear muddy and destroys its richness. It is also spongy, stands too high up in the grain, and, In fact, has all the bad qualities of all the other megilps without a single redeeming one. The beeswax may now be added, after being melted as before described, care being taken not to put too much in it. The best plan is to try the colour before proceeding with the work, by rubbing in a little and combing it. If the colour stays in the form left by the comb it is right, but if it does not, it will require more wax. We may briefly sum up the foregoing description of the mixing of graining colour as follows, viz.: Mix burnt umber and Oxford ochre with linseed oil and turpentine in a can or pot, add terebine or liquid dryers, beat or stir well up, add the beeswax, thoroughly mix these together, then strain or press the whole through a fine strainer or a double fold of fine muslin; the colour should then be thinned or diluted with oil

and turps until it is of the proper consistency and shade required, and works freely and cleanly. What we mean by laying on clean is, that when the colour is being brushed over the work to be grained, if it is not properly mixed and strained it will gather or accumulate in the quirks and mouldings, and will be shady and dirty looking; but, if properly mixed, it will lay on evenly, be easily spread, and will look clean and of one uniform shade. It will be evident that this is a very nice point, and is of the greatest importance to the work. Care and cleanliness in working is as necessary to the successful carrying out of this as it is in more important works, and therefore it is essential that the colour, the brushes, and all working tools should be clean to begin with, and be kept clean.

(To be continued.)

A NEW APPLICATION OF AN OLD PROCESS TO THE DECORATION OF TILES, PLAQUES, VASES, AND CERAMIC WARE GENERALLY.

IN the Paris Exhibition of 1878 there were exhibited some examples of the above method of decoration, done, if we mistake not, by Messrs. Minton's London agent. These plates were etched, and the lines of the etching were filled in, some with gold and others with colour. The effect obtained was so remarkable, and the work was so much esteemed, that the plates were at the close of the Exhibition presented to the various Governments of the Continent, as rare examples of a new and beautiful application of the ordinary etching process. It was also stated in the journal in which we saw the account (the *Daily Telegraph*) that the plates exhibited were the first works of the kind which had been produced by the etching process. This statement, however, was a mistake, made, no doubt, in ignorance of the fact that we ourselves had, three years previous to the date of the Paris Exhibition, executed various works of this kind, and had carried the process very much further than the plates referred to; these latter were simply etched, as we would etch a copper-plate for printing from, while in ours (of which we have numerous specimens) in addition to the etching, the backgrounds were eaten away, giving the effect of white figures or ornaments, and slightly in relief on a coloured dead ground (*i.e.* without gloss), all the details of figures, features, draperies, &c., were etched and filled in with colour. The effects thus obtained are very beautiful. Processions of figures in the white glaze, or opal glaze, on a dark coloured dead ground are highly decorative, and the resulting effect is such as cannot be got by any other method we are acquainted with.

We are, of course, aware that very beautiful works are being done by etching with the dry point upon the clay vessels, while in a soft state, before being fired in the kiln, but this style of work cannot be compared in beauty of effect with that we are writing about.

We shall give to our readers the benefit of our experience in this matter, and can assure any who are induced thereby to study and practice the art that they will be amply recompensed by the result.

Etching by means of acids is a very old process, and has been practised by most of the old masters; many of the most eminent, as Rembrandt, Callot, Claude Lorraine, Albert Durer, being celebrated as etchers, and in our own day we have Turner, Samuel Palmer, and many others who have left behind them works of exceedingly great merit as etchings. It is a pardonable and also a natural ambition for an artist to desire the means of multiplying copies of his works, and in the process of etching they found what they desired.

It is surprising how little the processes have varied or been improved upon during the last two hundred years. The etcher, then as now, covered his copper-plate with a composition, principally composed of beeswax, pitch, resin, and varnish, which, when properly manipulated, would resist the action of acids. He then drew his design or subject upon this composition or ground by means of a tracing paper and scraped away the composition from off the copper with fine and coarse needles or a steel point.

The plate was then subjected to the action of an acid which eat or corroded the copper in all the lines exposed to its action, and thus was formed a matrix from which fac-simile impressions could be taken with ink. Well, we do this now in exactly the same manner and with exactly the same material. So we see that etching is really an old process, but in applying it to china or earthenware we are making quite a new application of this old process. Not as a pictorial etching, but decorative, which, of course, requires a different and much bolder treatment than if we were intending it for a printing process. Although we have succeeded in etching copies of Raphael's "Virgin and Child" and "St. John" in almost fac-simile of the lines of the engraving, we do not recommend this sort of work, it being too fine and too elaborate for our purpose. We would advise the student to practise with a good bold outline, and just sufficient amount of lines to give the necessary detail with clearness and decision, although if the body of the tile, or china, is sufficiently hard, very fine cross hatching may be executed if necessary. We have found that the common white glazed tile is not as a rule of the same body or consistency throughout, but that there are parts in them which are unbaked or soft and powdery, somewhat similar to the small balls of flour we sometimes find in imperfectly baked bread. These unbaked

parts will, when the acid has eaten through the glaze, be eaten into holes before the other parts of the lines are bitten deep enough, and thus the labour will have been in vain. So it will be necessary to be careful in chosing the tiles, &c., before putting the labour on them—some makers turn out better worked or kneaded clay than others. The glazings of earthenware differ in their composition, some having a soft and others a hard glaze. The soft glazes are more quickly operated upon by the acid, and may be hardened afterwards by firing a second time. Tinted glazes may also be used, and thus varied and beautiful effects produced. A semi-transparent coloured glaze spread upon a white body, either on the whole or part of the ware, or other article, may be so worked that the back ground is eaten away, leaving the figure or ornament of different colours, and the backgrounds may then be left the dead white as left by the acid, or may be coloured. It will be seen that with the sharp clear etched lines filled in a suitable colour on the pure white, or tinted glaze, in contrast with the semi-rough dead-coloured background, very artistic effects may be obtained. The method of working we shall treat of in our next month's issue.

Trade Intelligence.

THERE is every prospect of a good year's trade before us. So much good work was postponed in 1879-80, in deference to "Bad Trade," that there must of necessity be a great deal to be done. Then, too, the commercial outlook is more encouraging, and the Decorative Trades pulsate in close sympathy with the industrial and manufacturing communities. 1881 gives promise to be a marked contrast to its immediate predecessors, and we trust at its close to be able to offer our congratulations to our subscribers, on a successful season's trade.

In our "Art Notes" will be found a paragraph relating to colour, and the use of greens in situations where they come in contrast to natural green; reverting to this again, we have found in practise that the most successful way of treating greenhouses, conservatories, &c., is to paint the framework two shades of brown olives, or olive browns. The contrast thus effected between the neutral brown of the sash frames and the foliage and flowers inside is a most pleasing one. This treatment has another value over the old method of painting them white, that when done in the colours named, the plants inside are perceived *sooner* than if the frames were painted white, this latter obtruding itself on the sight before the eye can reach the flowers.

Decorators must at times have been struck by the great discrepancies that exist in prices for goods nominally the same. The facilities for adulteration in the oil, colour, and varnish trades, are so great and so easy, that the result is, the market is flooded with "cheap" stuff, that is "dear at any price." There is no more important article comes into the Decorator's shop than patent knotting; its importance consists in the fact that if it is not good, the result does not show itself until it is too late to remedy it without great loss both of credit and money. Now we have known knotting offered at an excessively low price in face of a rising market for shellac, and the other ingredients from which it is made. What is the explanation? Common ingredients all through, with dissatisfaction, and discredit on all concerned. Our advice to our readers is, not only in this particular case, but as a principle of their business, deal with respectable well established firms. Pay a good price for what you buy, and *insist* on having a good material.

To all interested in Art works a visit to Messrs. Doultons' establishment, Lambeth, is well worth the trouble. Messrs. Doultons' work is well known throughout the country, but it is only at their show rooms you see the extent and variety of their manufactures.

We note there is to be an exhibition of Building materials and accessories, in the Agricultural Hall, Islington, London, in April next. Application for space is to be made to Mr. John Black, 161, Strand, who will furnish all particulars.

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IMPORTANT.

The Editor will be glad to receive information on all matters of interest affecting the Decorating Trade-Reports of Works, &c., in progress or completed, and will give his best attention to any suggestions made with a view to render the Journal more useful to Art workers.

Any irregularity of delivery or difficulty in obtaining "The Journal of Decorative Art," should be immediately reported to the Proprietors, who will esteem such information a favour, and will give it their immediate and prompt attention.



W.S.

ORIGINAL DESIGNS FOR FRIEZES SPECIALLY



IGNED FOR THE JOURNAL OF DECORATIVE ART.

AAS.

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"LIFE WITHOUT INDUSTRY IS GUILT.
INDUSTRY WITHOUT ART IS BRUTALITY."

WORK AND PRICE.

WE are now on the threshold of the season's trade; a word or two, therefore, may not be out of place here on a question that is a standing puzzle to almost every good decorator, and, in fact, to every good tradesman—*i.e.*, how to reconcile the startling discrepancies that exist in nearly every group of estimates. We have in view the case of a respectable house decorator who tendered for a small job which will illustrate our question equally as well as a larger one would. The tradesman, whom we will call A, sent in his specification, and tender, which was £36; B, another house decorator (?), sent in his tender, which was £18, for *nominally* the same work.

Contrary to the practice usual in such cases, the gentleman (who happened to know something of the value of work), gave the contract to A, without any deduction whatever from the estimate. Note the sequel. The wages alone on the work amounted to £22, exclusive of any materials, which totalled up to another six or seven pounds—making a grand total of twenty-eight or nine pounds.

The question immediately arises: how is this cheap work done, and who's to blame for it? We are afraid that the grievance, for it is a grievance to every honest tradesman; is of too old standing to be easily eradicated, but it is certainly one that, if the respectable portion of the trade determined to have no compromise with it, would soon be relegated to quarters and into hands that bear the stigma and stamp of such conduct about with them, and would then be avoided by all honest folk.

One of two things must be the result of this sort of work—either the work is "scamped," and the customer is defrauded not merely in quantity, but in quality both of material and workmanship; or the contractor must be doing work that does not pay him. Now, this latter may and does occasionally occur, almost inevitably; yet when we see the plan adopted as a system and basis of trade, and carrying with it the signs of apparent success, we are driven to a conclusion that is not flattering to those who follow it. This is not the only harm the system does: men who are employed at this cheap class of work, become quite unfitted for any description of good work, and their labour, which should be a pleasure to them, becomes a toil and a drudgery.

Who is to blame? We are inclined to believe that in the first place the public are the greatest sinners in this question.

How common an experience it is to see a man immediately glance at the figures of an estimate, without troubling either to peruse the specification or to compare the value or amount of the works described in each. This seems to be more particularly the case in painting estimates than in anything else. Men, who in the purchasing of wearing apparel, household furniture, &c., &c., will—as a matter of deliberate choice—pay a higher figure with the intent to get a better article, never apply the same reasoning to decorations, but if John Smith's tender is £200 and Wm. Jones's tender is £175, they immediately settle in their own minds that Jones is the cheaper workman, and Jones gets the job. It may be, and most likely is, that Smith specified more work, and to be done in a better style, and that in the end it would have been much cheaper to have given the work to Smith; but no, Jones was lower in price; and he gets the work.

Some share of the blame must be accepted by the trade, masters often being induced to accept lower sums than their original estimate, under the promise of subsequent work, and by comparison with the estimates of jerry tradesmen. Only one course remains open for good tradesmen to pursue, viz., to give careful estimates and to stick to them; not to be either cozened into departing from them by spurious promises on the one hand; or induced to lower their price by comparison with the estimates of men who base their calculations on *what they can evade doing*.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.

CHAPTER IV.

Preparatory Processes.

IF too much paint is laid on the work it scarcely ever gets hard, and cannot be rubbed down, but skins over the surface and, of course, keeps soft underneath. The second coat should be mixed with two-thirds oil to one of turpentine; third coat, two-thirds turpentine to one-third oil (*i.e.* two pints of turps to one pint of oil). Thus we get a firm, hard, and tenacious body of paint, without any tendency to reeve, crinkle, soften, or peel. Ordinary plastered walls have a porosity and power of absorption, quite different to the cement walls we have been describing, and consequently the paint used for the first coat should be oil colour exclusively, and may be mixed in the following proportions: one pint of linseed oil to four pounds of white lead, stained with a little Indian or Venetian red. We prefer the first or priming coat, either on walls or woodwork, stained red; in the first place, because warm tints cover better, and sooner bring the work to one uniform tint than either cold or even umber tints; and secondly, because, whatever tint or colour the work may afterwards be finished, the red in the first coat warms and mellows all the subsequent coats of paint. And here we may note the fact that, in painting, almost all colours are improved by a groundwork of red or reddish tone of colour. Blacks, blues, greens, and yellows are improved in tone treated in this manner. It will, of course, be understood that there must afterwards be a sufficient body of colour, either green or blue, to cover the red, and that the red must be in strength or depth of tone proportionate to the strength of the tint of the finishing colour. For instance, if we want a rich, warm black, we should paint first with Indian red or purple brown; one coat of drop black will suffice to cover the red, and we thus get a warm black pleasant to look upon. But in painting a wall or door which has to be finished in light tints of parti-colours, we should only stain the first coat of priming of sufficient depth to answer the end in view, namely, to warm and mellow the subsequent coats of paint, for it will be found that if we paint a groundwork of any strong colour, and afterwards paint the same over with four, five, or even six coats of light tints of colour, all these coats of paint will be influenced, more or less, by the first ground colour, and the finishing tint will partake to some extent of its tone; this will be the more perceptible as time goes on. We find, in practice, that if common outside window sashes, which are being repainted—dirty and black as they generally are in our large towns—if they are to be painted with two coats of white, the second or finishing coat will cover better and be much whiter if the first coat is stained with red. The red seems to have a power of destroying or neutralising the black dirt, which no other colour possesses. Now, if these sashes are painted with pure white for the first coat, the paint will be of a dirty lead colour, which affects the second coat and injures its whiteness. It may be said that the same effect may be gained by painting the work in tints, and adding red to the last coat; the colours may be modified in this manner, but not without sacrificing their purity, whereas, in the former case, we obtain the warmth and purity of tone as well.

In giving the proportions of white lead to oil in mixing paints for various purposes, both here and in other parts of our subject, it must be thoroughly understood that, although they will be found to be strictly correct, being established by years of experience, they refer only to the best white lead and oil; for, as a rule, white lead is so much adulterated that it would not be possible to lay down hard and fast laws as to proportion that would be applicable to all white leads; and, in any case, some little latitude must be allowed, because even the best leads differ in density or body according to age; new lead not requiring so much oil to make it into workable paint as old lead does, its density being considerably less. When the colour is mixed it should be properly strained, or passed through either fine muslin or finely perforated metal strainers; these latter do not answer the purpose as well as they should, because they allow particles of grit and unmixed lead to pass through the perforations. In straining the colour we have two objects in view, namely, to thoroughly mix and amalgamate the lead with the oil, and, secondly, to intercept all grit, skins, and foreign matter which may be in the colour. This is best effected either by using two or three folds of fine muslin or a strainer made of very fine wire gauze. Much, of course, depends upon the degree of fineness or coarseness of the lead used, and many of the common colours are so coarsely ground, and have so much sand and other abominations mixed with them, to make them weigh heavy, that it is impossible to make smooth work with them however carefully the paint is strained.

But with well and finely ground pigments, carefully mixed and strained, there will be no difficulty in getting up smooth work. Great care should also be taken with brushes, to see that they are perfectly clean and free from nitts, dirt, and grit. The keeping of brushes clean, and in working order, is one of the greatest difficulties the house painter has to contend with; men are careless and do not take the trouble

to prevent the brushes getting foul. Many plans are tried with varying success.

While brushes are being used daily on a job, they take no harm in being placed in water, in a clean kettle or tub, and with sufficient water to just cover the bristles, they will be in good order next morning.

In using brushes, whether for paint or varnish, there are several conditions requisite to preserve them in good working order, the principal of which are—first, care in working, so that the brush shall work and wear evenly, and with the ends of the hairs uniform in length and square. This can only be accomplished by using the brush lightly, without much pressure. A common fault with many painters is to exert too much pressure on the sides of the brush when working, thus wearing it away on two sides and leaving it hollow in the middle, making it an impossibility to lay off the work without showing the marks or streaks of the brush. In fact, a poor workman will thus give himself a large amount of extra trouble and harder work than there is any necessity for, and not do the work half as easily to himself, nor as well, as the good workman. This fault is the cause of that streakiness we so often see in painted work. The second quality of a good brush is cleanliness, which can only be obtained and kept by carefulness in working. A good workman will have his brushes clean in the handle, and free from paint on the stock, and on the brideling, and will take care that the paint is well scraped from the roots of the hairs before he puts it away when done with for a time. But the careless workman allows the paint to accumulate at the roots of the bristles, and on the stock and handle of the brush, where it dries, and when he is working with it the dry and semi-dry paint breaks up with the motion produced in working, and so gets on to his work, fills it with nitts, and, of course, makes it bad and rough. He is liable also, with a brush in this state, to get the lead on his hands and under his nails, thus bringing on painter's colic, &c. It may be set down as a rule that the workman who is careless and dirty in the use of his tools, will not be over clean or careful of his person. On the other hand, a good and careful workman may use the paint brush a whole day without soiling his hand, which fact, in many cases, just makes the difference between health and disease amongst house painters. The next, and, in fact, one of the principal requisites for preserving a brush in order, is the indispensable necessity of having some means of keeping them right when put away for a time. Ordinarily, this is done by simply placing the brushes in the brush tub, with very little care or attention, and if they should not be required for any considerable time the bristles become bent and turned up at the points, and often twisted or warped in their whole length, and in this condition are useless; or the tub may not have enough water in it to cover the hairs properly, and the consequence is that they get dry, and become foul and nitty; or there may be too much water in the tub, not only covering the bristles, but the stock also, the result being that the stock swells, the wrapping becomes rotten, and the brush bursts, and thus is ruined.

A good plan to adopt with brushes which are constantly in use is to have a zinc cistern made, of any convenient size, according to the number of brushes required to be kept in it. An oblong form is the best, its depth should be about ten inches. The lid to be made of zinc, strengthened with strong bars of zinc, and perforated with oval and round holes, just of sufficient size to allow one brush to be placed in each, so that it shall be held without falling through. The cistern may then be filled with water without danger of injuring the brushes. The lid should be so arranged that the brushes shall enter the water only so far as just to cover the bristles; thus suspended they will not touch the bottom of the cistern, and so will escape injury.

(To be continued.)

OWEN JONES AND HIS CONTEMPORARIES.

CHAPTER III.

"The Grammar of Ornament."

THE reputation of every author is more particularly identified with some one especial work than with the mass of his writings: for instance, we immediately think of "Modern Painters" at the mention of Mr. Ruskin's name, and instinctively connect "The History of Architecture" with the name of Mr. Fergusson; "Paradise Lost" and John Milton are inseparable, while, as the author of "Adam Bede," George Eliot will be known where her other works are strangers. In like manner the work that is most popularly associated with the name of Owen Jones is "The Grammar of Ornament," and had this been the only work he had left behind him, it would of itself constitute a sufficient claim on our gratitude.

The younger part of the present generation cannot realise how vast is the distance that separates the decorative work of to-day from that which obtained thirty or forty years ago, and only by comparison of the work of the two periods can we form anything like an accurate estimate of the advance that has been made. As we stated in the first chapter, this advance is due very largely to Mr. Jones and the artists associated with him, and no one factor was more potent in influencing this forward movement than the publication of the work, the title of which heads our chapter.

It came at an opportune moment, and its influence was therefore more powerful than if it had been published either twenty years earlier or later than the year in which it did appear, 1856.

The Exhibition of 1851 had shown most conclusively how completely behind the continental nations we were in matters of design and art generally, and that if we were even to attain to an equality with them we must "try back" to some firmer and more substantial foundation than that of following the passing fashion, whatever it might be. Between the years '51 and '56 public opinion, amongst the cultivated classes, had begun to formulate a desire for something better in floor and wall coverings and interior decorations than the perennial cabbage-roses and monster lilies with which the country was deluged from north to south, and the issuing of a choice selection of the best examples of bygone styles, coupled as it was with very instructive literary matter, containing the experience and deductions of men who were essentially artists, was calculated to effect a very radical change for the better—a result that has indeed taken place, and is, in no small measure, due to the work under our consideration.

It was first issued in parts, imperial folio size, and published at twelve guineas for the complete work. Later on, a smaller edition was published at half the price, and we may add, in passing, that both the above editions have become enhanced in value since their first appearance.

Messrs. Day and Sons, the eminent lithographers, undertook the work of publishing it, and were very successful in their efforts.

Prominently associated with Mr. Jones in the work were Mr. J. B. Waring, Mr. J. O. Westwood, Mr. Digby Wyatt (afterwards Sir Digby Wyatt), and Mr. C. Dresser, each of whom have since attained special distinction in their respective careers.

The work consists of one hundred and twelve plates, many of them elaborately coloured, as near to the originals as art could produce. In addition, a large number of woodcuts are interspersed in the literary matter, and not the least valuable are the twenty chapters of original writing, dealing with the various schools of ornament that may be under discussion. It is, in brief, an epitome of the ornamental art of the world, in which the aim of the author has been to set before his readers the most representative examples of all the important styles of ornament, that have ever existed.

The author, in the preface to the work, fully states the aims he had in view, and we cannot do better than quote his own words on the subject. He says:

"It would be far beyond the powers of any one individual to attempt to gather together illustrations of the innumerable and ever varying phases of ornamental art. It would be barely possible if undertaken by a Government, and even then it would be too voluminous to be generally useful. All therefore that I have proposed to myself, in forming the collection which I have ventured to call "The Grammar of Ornament," has been to select a few of the most prominent types in certain styles closely connected with each other, and in which certain general laws appeared to reign independent of the individual peculiarities of each.

"I have ventured to hope, that in thus bringing into immediate juxtaposition the many forms of beauty which every style of ornament presents, I might aid in arresting that unfortunate tendency of our time to be content with copying, whilst the fashion lasts, the forms peculiar to any bygone age, without attempting to ascertain—generally completely ignoring—the peculiar circumstances which rendered an ornament beautiful, *because it was appropriate*, and which, as expressive of other wants, when thus transplanted, so entirely fails."

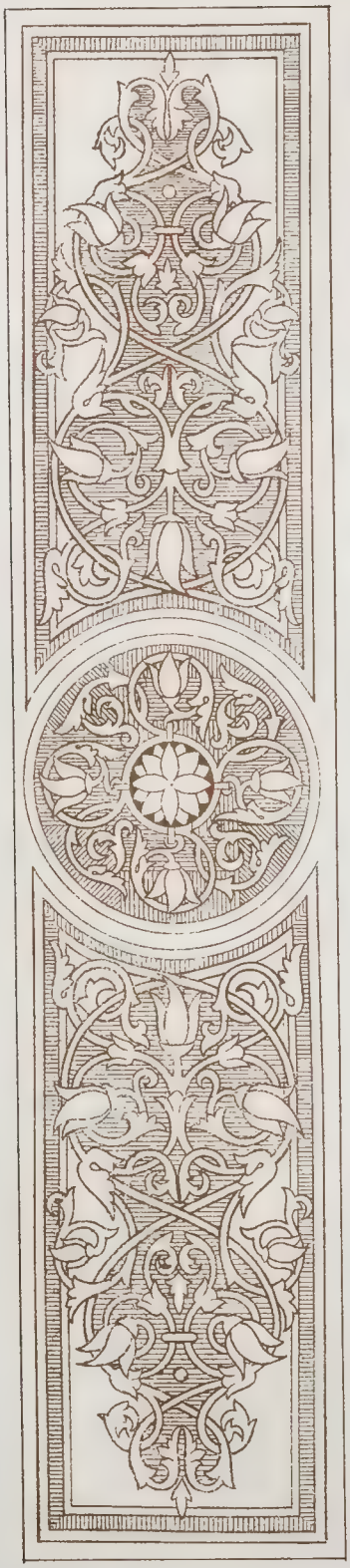
The above constitutes the aim the author had in bringing out the work. We cannot quote more from the preface without touching on the propositions which are here epitomised, and which we wish to reserve for a more complete and full discussion than we can give them in this chapter. We have ventured to italicise one sentence in the paragraph we quote, because it appears to us that in that sentence is contained the very essence of all successful art; as, however intrinsically beautiful a work may be, if it is injudiciously applied, or if any incongruity exists between the value of the decoration and the thing decorated, depend upon it that the most potent element of beauty, viz., "fitness," is lacking.

The propositions, which embody the result of Mr. Jones's long practical experience, separate themselves into two natural divisions, those of "Form," and "Colour," the former being embraced in the first thirteen, and the latter in the succeeding twenty, whilst three more are devoted to general matters.

These propositions are admirable in their careful analysis of the constitution of good ornament, and their close analogy to the laws which govern natural forms, and, while it would be mere pedantry to say that without these laws successful ornament cannot result, yet it is none the less true, that in the most successful decorative work of past ages these laws are found in constant and unvarying operation; and the converse is equally true, that, as the art of successive nations has declined, these laws have been neglected and set at defiance.

(*To be continued.*)

As with nations, so with individuals, there is no station so low and humble, that virtue and industry will not make the man placed in it as happy as it is given to man to be; none so high and fortunate, that vice and indolence may not convert it into hell upon earth.—*Fergusson.*

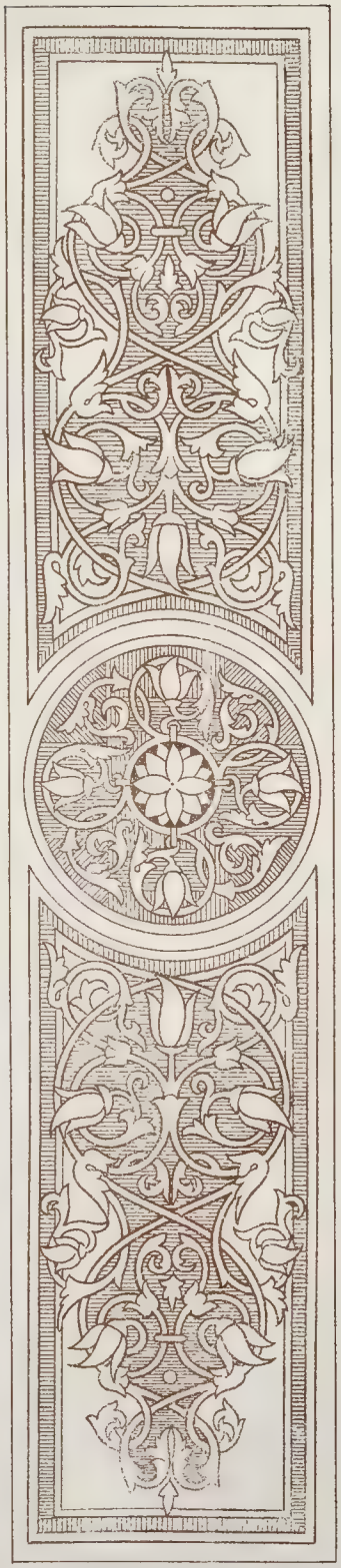




W.S.

ORIGINAL DESIGN FOR DRAWING ROOM CEILING, SPEC





LY DESIGNED FOR "THE JOURNAL OF DECORATIVE ART."

A.A.S.

ON THE MATERIALS AND TOOLS USED BY THE HOUSE PAINTER AND DECORATOR: THEIR PROPERTIES, COMPARATIVE VALUE, AND USE IN THE TRADE.

CHAPTER III.

"Lincrusta Walton."

NEVER, previously, in the history of decorative art has there been a time when the resources at the command of the decorator were so abundant, and well suited to every phase of the varied requirements of the different grades of civilised society. In the matter of wall coverings this is especially the case, our choice of material being only limited by its price. We have so wide a range offered to us in this respect, that even the poorest householders can have their walls made beautiful in colour and design at a merely nominal cost, while those who have unlimited wealth at command may indulge their taste and fancy to any extent.

The old plan of covering the walls of dwelling and state rooms with tapestry, has long fallen into desuetude, although to some extent it is at present being revived, a manufactory, or rather, an artistic school, having been established at Windsor, under the most exalted patronage and support.

The oak panelling or wainscot, of which numerous examples are scattered throughout England in the old manor houses, baronial halls, and castles of our nobility, is, without question, the best and most suitable wall lining we have. For warmth of colouring, adaptation to its purpose, and durability, we know of none to equal it. Its cost, however, precludes its general use.

In the list of modern wall coverings, we have, in addition to the numerous descriptions of paper-hangings, several kinds of inlaid woods, as marquetry, and parquetry; fancy woods cut into thin shavings, backed with canvas, and affixed to the walls in the same manner as paper. There are also several kinds of material worked up by different methods into slight relief, such as raised flock, papier maché, carton-pierre, fibrous plaster, &c.; many of these are excellent in design and execution, and are being very extensively used.

Amongst many other kinds of material which have been invented and brought into extensive use during the last twenty years as floor coverings, we have "Boulinikon" and "Linoleum," and it is to an improvement, or rather an artistic application of the latter, that we wish to draw the attention of the readers of this journal.

The manufacture of Linoleum is based upon the oxidation of linseed oil, which, mixed with other ingredients, forms a damp and noiseless floor covering, having great tenacity, and power of resistance to wear and tear. It is so well and widely known that we need not dwell upon it here, but proceed to describe a new application of the material which we cannot doubt has a wide and successful future before it.

Mr. Frederick Walton, director of the Linoleum Manufacturing Co. (the largest floor-cloth manufactory in the world), is, we understand, the inventor of the new process, which process results in a somewhat similar effect, to an invention for impressing patterns upon wood, brought out some few years ago, named "Bois repoussé," by which means, excellent effects were got by stamping or pressing wood with steel dies while in a soft state from steaming; the cost of production however, was so great, that it has, we believe, fallen out of use. This is to be regretted, as in some respects admirable effects were produced. It has occurred to us, that possibly the "Bois repoussé" may have suggested the invention of the "Lincrusta Walton;" be that as it may, the processes are somewhat similar in principle.

The "Lincrusta Walton," according to the inventor, is a mixture of oxidised linseed oil and fibre, rolled upon linen, calico, or other fabric. In this state it is then submitted to the action of iron or steel rollers, on which the die or pattern is sunk. The "Lincrusta," in passing through these rollers, receives the impression of the pattern, but in relief—that is, the reverse of the sunk pattern—and comes out with a clearness and sharpness of outline equal to the best wood carving. In this state it may be "undercut," "tooled," or shaped according to the taste and skill of the carver.

It is, however, with the decorative aspect of this manufacture that we have to deal here, and in this respect, as a means of reproducing artistic forms, it takes a very high rank.

The most minute forms are rendered with a truth and fidelity charming to behold; flowers, leaves, birds, fishes, and all animal and vegetable forms, so produced, are admirable in their finish and effect; in fact, the degree of excellence is limited only by the talent of the designer, and the skill of the die sinker. The material will lend itself to the finest as well as the boldest ideas or designs of the artist.

As a wall covering, or for ornamenting door panels or furniture, it is the best thing we know for producing a good effect at a comparatively small outlay.

It can be painted, or gilt, in accordance with any style; is simply and easily fixed to the surface of wood or plaster; is perfectly water and damp proof, and elastic. We are told that sun or frost does not injure it, and that trials have been made of its use on outside walls with successful results; of this, however, we have no personal knowledge, but of its use on interior walls we have had practical experience, and can speak with confidence of its capabilities. When we consider the beauty of design, correct

drawing, and manipulative skill displayed in the finished works, we feel confident that on this manufacture becoming thoroughly known, it will be extensively used for the purposes above named.

It is made in lengths of twelve yards by eighteen and nineteen inches in width, and is withal moderate in price.

On the whole, this is one of those improvements which we have great pleasure in recommending to the decorative trades as a beautiful, useful, and permanent means of interior decorations.

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND REVISED FROM THE HIGHEST AUTHORITIES, ENGLISH AND FOREIGN.

CHAPTER II.

IT is chiefly to this period that genealogists trace the pedigrees of our most ancient nobility, as prior to this time we have but few and scanty annals of British or Anglo-Saxon families.

William the Conqueror divided the counties amongst his relations and supporters. To Robert, earl of Montaigne, he gave the earldom of Cornwall, with three hundred manors. To Odo, bishop of Bayeux, he gave the county of Kent, with nearly two hundred manors in it, besides two hundred and fifty manors in other counties. To Hugh Lupus, the son of his sister Emma, he gave the county of Chester, and erected it into a palatinate for him. To Alan, earl of Brétagne, he gave all the estates of Earl Godwin; and so on until he had divided almost the whole of England amongst his followers. Many of them received the reward of particular armorial bearings with their apportionments of lands, and became the founders of new families in a country which had been won by their prowess. In order to preserve their names for distant posterity, they were recorded in a roll hung up in Battle Abbey, near which the great and decisive battle of Hastings was fought. The persons therein mentioned became the patriarchs and forefathers of most of the English families of distinction for many ages, and several of our illustrious nobility at the present day are descended from them. Not only the introduction of the French blazonry—of hereditary honours and titles and bearings, with all the magnificence of stately trappings embroidered with escutcheons of arms—now took place in England, but even the language of the higher orders was altered, nothing during many years being spoken at court but Norman French, and hence all our state proceedings were conducted in that language, a fashion which for centuries made the subjects appear a separate and distinct people from the kings and nobles who governed them and bound them in fetters of vassalage by the introduction of feudal tenures.

The practice of holding tournaments tended to facilitate the custom of wearing coat armour, and these meetings were usually chosen as fit occasions for the conferring of knighthood on those who were thought deserving of such an houour. This was done to give encouragement to the practice of the military art. The power of bestowing this title did not at that time reside exclusively with the king—princes of the blood, peers of the realm, and the higher orders of nobles, all either possessed or affected that authority. When the Earl of Suffolk, in the memorable siege of Orleans, was obliged to yield himself prisoner to a Frenchman of the name of Renaud, he asked of his adversary whether he was a gentleman. On receiving a satisfactory answer, he demanded whether he was a knight. Renaud replied that he had not yet attained that honour. "*Then I make you one,*" replied Suffolk; and after giving him the blow with the sword which admitted him into that noble fraternity, he surrendered himself his prisoner.

Knights usually followed the more important tournaments whenever they were proclaimed, that they might find signal opportunities of exhibiting their valour and of cultivating the friendship of distinguished persons. It was fashionable for knights to avoid marriage for some years after their admission into the order, so that they might travel into different countries and visit foreign courts. But most of them devoted their services to some favourite lady, and generally wore some token of the lady's love in their helmets, and fought in her name. These tokens or pledges were called "*faveurs,*" and hence, perhaps, the pieces of lace or ribbon which are to this day bestowed at marriages, are termed the "bride's favours."

The wars of the Crusades gave a great impetus to the practice of heraldry. An active and important part was taken in the wars of the Cross by our heroic King Richard I., surnamed *Cœur de Lion*, or Lion-hearted, and those chiefs who went with him to the Holy Land, and lived to return, were naturally desirous of displaying their own improved armorial bearings, as well as the rich banners and superb shields which they had wrested from the Saracens in the sacred war. The banners consisted of the richest manufactures of silk, upon which the device was curiously embroidered. The shields were of metal, enamelled in colours, and enriched with scrolls of gold and silver. These trophies were dedicated to some propitiatory saint, over whose shrine they were suspended. Coats of arms, too, were considered of sufficient veneration and importance to be admitted as ornaments and mementoes into sacred edifices, and were either sculptured in stone, displayed in stained glass, or painted in fresco

on the walls. The first instance of a sculptured coat of arms thus exhibited in England, occurs in the Temple Church in London, on the shield of Geoffrey de Magnaville, earl of Essex, who died in 1144. The practice of carving or painting the family arms on monuments soon became common, and led to their introduction on tapestry and hangings on the walls of state rooms of the great halls in castles, &c. So sanctioned it is no wonder that coats of arms came to be considered as an indispensable appendage to the dress and furniture of every gentleman, or that they should be considered as the exclusive right of those who had obtained or won them; that they should be made the lawful inheritance of the family who bore them, and hence that so much skill and attention should have been devoted to the scientific improvement and elaboration of heraldry in reference to charges, blazonry and marshalling. How long armorial bearings had then been held hereditarily in England is not ascertained. It is supposed that this right could only have been recognised about the time of the Norman conquest.

The celebrated Cadwallader, who died about the year 690, bore—azure, a cross pattée, fitchée in the foot, or. Roderic, surnamed the Great, bore the same—he was Prince of Wales in 843. Another very early instance is the following: In the reign of Kenneth II., king of Scotland, a near relation of that monarch being taken prisoner and hung by the Picts, the king offered a great reward to any one who would dare to rescue the corpse. It was not long before a brave soldier presented himself, saying, in old Scotch or Irish, "Dal zell," which signifies "I dare." The dangerous task was accomplished, and the hero took the name of Dalziel (ancestor to the earls of Carnwath), and had given him for armorial bearings—sable, a naked man, pendent; crest, a dagger erect, proper, pomel and hilt, or; motto, I dare. This occurred about the year 840.

(To be continued.)

OUR ILLUSTRATIONS.

ORIGINAL DESIGN FOR DRAWING-ROOM CEILING;
ORIGINAL DESIGNS FOR FRIEZES.

SPECIALLY DESIGNED FOR THE "JOURNAL OF DECORATIVE ART."

WE give this month a design for a drawing-room ceiling, also two designs for friezes, all in the same style of decoration as the designs in our previous numbers.

The ceiling decoration, as will be perceived, is designed for the decoration of a perfectly flat ceiling, without any structural feature made out in plaster. At present we shall restrict ourselves to this plan; but will, in due course, give examples of structural designs, decorated with appropriate ornament. In describing the colours most suited for the ceiling illustrated, we have also suggested a scheme of colouring for the cornice; so that by referring to the description in our first number, the reader will be able to comprehend and combine the whole, and thus form a complete scheme of colour for the room.

It will be seen that our design is drawn so as to suit a square or oblong. The centre design would be complete in itself if the ceiling is square; and by adding the two panels, one at each end, we get a design suited to an oblong ceiling.

The whole of the ornament may be stencilled upon the ceiling, and the straight lines run with a fitch and straight edge. The lines of the circles may be partly done with the stencil and part run with the fitch, by having a guide, made of wood, similar to the straight edge, but forming a section of the circle line. Lines are always better run thus than stencilled, but, of course, this is not always possible. Having regard to the colouring of our drawing-room wall decoration, before described, we would first strike out the circles, by putting a peg into the centre of the ceiling and fixing a long straight edge on it, sufficiently long to cover half the diameter of the outside edge of the circle to be struck, having a series of holes drilled into the opposite end at the exact distance from the centre where the lines are required; insert a pencil, and the lines can then be marked out with very great ease. The border lines will then be struck with a chalk line in the usual manner, and the circular line to the corner diaper would, of course, be marked out from the centre.

There are four circles in the design—first, the centre flower; next, the circle, with line and ornament springing therefrom; then the band circle, which may or may not be used, at the option of the decorator; and lastly, the large circle with the principal ornament. The centre flower may be a cream colour, etched with gold if it is plaster, or any other material in relief; and the circle inside the band may be a very light tint of azure grey. This is a colour nearly approaching to what we see in nature, and denominate "space," and may be made from white, emerald green, and ultramarine blue, either with or without a slight touch of burnt sienna. The space outside the band, up to the outer edge of the large circle, may be done with a similarly made colour to that of the inner circle, but with a little Indian red added, which will give it warmth; or both may be done with the same colour. The ground for the diapers in corners may be laid in a slightly pink hue, made from Indian red. The bands and border to be laid in with a light creamy fawn colour, slightly modified by a little burnt umber added to it.

We now come to the stencilling of the ornament, which may be simply done in one or two colours, or in several tints. The lines and ornament within the circle enclosed by the band may be done with the husks and finials in gold colour; the lines and other part of the ornament to be of a stronger and duller colour, made from white, Oxford ochre, and umber—what may be called a shade colour of gold. The ornament on the large circle may also be done in two colours: a strong deep rich gold for the lines, and a white or light-cream for the flowers.

The diaper at the corners will come out best if the ground is stencilled in—that is, the dark parts, which may be done with a reddish brown colour. The border, also, will look best with the background stencilled in, leaving the ornament the same colour as the bands. The patera at corners and centres may be done the same colour as the flowers in the large ceiling ornament. The background of border may be stencilled in, with a colour made with white, Indian red, and umber—a sort of warm shade colour just sufficiently strong to show up the ornament distinctly without being harsh. The lines on the whole of the ceiling may be run on with a colour of a much stronger tone than any other on the ceiling, made from white, Indian red, and ochre, sobered and dulled by either burnt umber or black.

We have now to say a few words as to the colouring of the cornice which unites the ceiling and walls in one scheme of colour,—and here we are awkwardly placed, and thrown back on to general principles. It will be at once evident that we cannot give exact directions for colouring a cornice of the constructive features of which we have no knowledge. One cornice may have twenty different members, while another will have only ten; one may be filled with enrichment, and another may consist of a conglomeration of beads. We can only, then, state what parts should be done with certain colours, and *vice versa*.

There is a principle which must be observed in the application of colours to moulded surfaces, which, if violated, always results in failure; and yet we see it violated by those who certainly ought to know better. Here we shall only briefly state how and where to place the colours, elsewhere we shall go more fully into the matter. If the cornice consists of alternate hollows, coves, quirks, projecting mouldings, and beads, we shall always be safe in putting all or any of our light tints of cream or fawn colours upon the projecting moulds and beads; the greys or blue-shade colours, and neutral greens into the quirks, hollows, and coves of the cornice. This is a law which cannot be departed from without risk of failure—a fact we shall amply demonstrate in due course. So in colouring the cornice of the drawing-room, the colours employed on the walls and ceiling may be placed on the various members: the darkest in the quirks, the lightest upon the projection, beads, and mouldings, and the heaviest colours next the wall—gradually getting lighter as it nears the ceiling. If these laws are obeyed, we cannot well get wrong. The object to be kept constantly in view is to produce harmony and *assist* the constructive features of the cornice. If the colours are misapplied, we destroy instead of helping the construction.

DESIGNS FOR FRIEZES.

The two friezes, given with the ceiling decoration, are designed in the same style, and may be used with it. They may, of course, be coloured in any style; or worked in gold and black, or gold and brown. They will lend themselves either to painting in relief, or for flat stencil work on a light or dark ground; they may also be worked up with the same colours as the drawing room, or a modification of the strongest colours used in that design.

ILLUSTRATIONS FOR APRIL.

Particulars of the illustrations for the next number are given on the last page.

Art Notes.

Whither are we drifting? There seems to be a strong current setting in, with the revival of classic architecture, to a more "natural" form of ornament. The lilies, roses, and other floral forms, are getting dangerously near to nature in some carpets and tapestry we have recently seen. We had hoped that, at all events for some years to come, this would not have been the case, and trust that these instances are only the exception to the general rule.

The famous "Nocturne" and "Arrangement" lawsuit has evidently not diminished aught of Mr. Whistler's individuality, nor has his hand lost any of its cunning. The exhibits at the rooms of the Fine Art Society, New Bond Street, of the "Venice Pastils" are evidence, if evidence were needed, that all the old power and vigour of drawing are still there, and that "harmonies" and "arrangements" are not empty phrases conveying no meaning or teaching no lesson.

The exhibits are numerous, no less than 53 different sketches being shown. They every one show how a skilful artist can, by the expenditure of apparently little labour, produce the effect of a finished and elaborated drawing. The harmony of the colouring in most of them is simply exquisite, and while one or two recall memories of "Nocturnes in Chelsea" and "Arrangements on the Thames," we would fain forget, yet the exhibition as a whole is of very high merit.

On the end wall are prints of the twelve etchings of scenes in Venice Mr. Whistler was commissioned to execute for the Fine Art Society.

The *Cabinet Maker* still continues to give vigorous evidence of its existence, and to demonstrate the necessity there was for new life in this department of trade literature. It is replete with illustrations, and the technical matter is possessed of great literary merit. We heartily wish it the success it so well deserves.

It is with unfeigned regret we record the death of Mr. B. J. Talbert. In our January number we commended a design of his for a ceiling paper, executed by Messrs. Jeffreys & Co. We little thought at the time of writing we should so soon have to notice the decease of so gifted an artist. Mr. Talbert's designs are familiar to the trade, and he was, without doubt, the chief of living designers, whether for fabrics or papers. He also took first rank as a designer for furniture. A writer in one of the daily papers thus speaks of him: "Mr. Bruce Talbert was probably the most

"original and remarkable of furniture designers which this "æsthetic age has produced. A Scotchman, originally intended "for an architect, he took the lead in the furniture reform move- "ment which has been so greatly abused. Even as an architect "he was of no mean capacity. His design for the Manchester "Town Hall was one of the three selected designs. But in "studying furniture pure and simple he was *facile princeps*. There "was very little old movable woodwork of any value in England "which he had not sketched. He was learned in all the differ- "ences between Early English, Tudor, Jacobean, Queen Anne, "and Georgian. His work on 'Decorative Art'—though artists "study it rather than the unlearned populace—was hailed by the "whole artistic world for its wealth of suggestion. A costly "cabinet from his hand, which was sold to the Khedive of Egypt, "won the gold medal at the Paris Exhibition." The "Sunflower" wall paper, that gained the gold medal at the Paris Exhibition, was also one of Mr. Talbert's designs. He died in London, on Friday, January 28th. At some future date we shall devote a special article to Mr. Talbert and his work.

ART AT THE ANTIPODES.

One of the "medal" papers at the Melbourne Exhibition is, to use an Americanism, "a caution to snakes." The plumage of the humming bird is quite out of the running, when compared with this latest offshoot of Nineteenth Century æstheticism. If we could imagine a dialogue between wall papers, it would be very easy to conceive one of the sober neutral tints we have grown to like so much, addressing this prismatic marvel in the words of Du Maurier's Jellaby Postlethwaite, "Are you intense?" We suppose climatic influences were at work when this was "medalled." Charity forbids any other interpretation being put upon the award.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

BY THE EDITOR.

CHAPTER IV.

Oak Graining in Oil.

IN mixing the colour for a medium shade of oak it will be found best to use raw Turkey umber with a little burnt sienna added; and for a rich dark oak, burnt umber may be used alone, except a cool tone is required, when a little ivory or drop black may be used with it.

We now come to the question of combs for imitating the grain of oak—hence the name, graining. Combs are made of different substances, and of different sizes. There are combs of horn, of steel, gutta percha, vulcanised indiarubber, cork, and leather. Horn combs were about the earliest used for this purpose; these are made in exactly the same manner as the ordinary tooth combs, and cut to the various sizes required; but there is this essential difference between the two, that while the teeth of the hair comb are cut taper and with a fine point, the teeth of the graining comb are left square and blunt at the ends, and of the same width throughout their whole length. There are several sizes made, varying in width from a twentieth of an inch to a quarter of an inch; and some are graduated from fine on one side of the comb to coarse on the other. Some thirty years ago, a Sheffield firm commenced making combs of thin flexible steel, which was a decided improvement on the horn comb, inasmuch as the teeth are not so liable to break in the working, have a good elastic spring, and are not clumsy in the handling. They also wear well, and are easily kept clean and in working order. There is, however, one objection to the steel comb, especially the coarser toothed ones; they do not comb clean, and do not part with the colour freely, and, as a consequence, the grain is left ragged and dirty looking. To remedy this fault, the leather, indiarubber, or gutta percha combs are used for the first combing, and the fine steel combs for the second; but of all the soft combs, we prefer the gutta percha. These soft combs are all cut in the same way. We will take the gutta percha for our text. The material is first cut into squares of various sizes, from one to four inches, the edges being cut perfectly square and level on all sides. To cut the teeth it will be found the best plan to place a square either upon the edge of a square table or against a strip of wood, and hold it firmly with the hand. The interstices between the teeth are now cut away with a sharp knife to the depth of about a quarter of an inch. By cutting in a slanting direction each way, the space between each tooth will be formed by two cuts, and the teeth may be left fine or coarse, as may be desired. It is better for every reason that the grainer should be able to cut these combs for himself. It must be understood that in cutting them the interstices are not cut through the whole thickness of the material, but only bits are cut out of the edges. They are much better thus; and when they become worn with work, the edges may again be squared and the teeth recut, thus forming a new comb, and so we go on, time after time, until the gutta percha or other material is used up. For good serviceable work, we prefer to use gutta percha in conjunction with the finest cut steel combs, and the cork combs for occasional use on first class work. The gutta percha is cheap, wears well, is easily cut to any size or shape, very fine or coarse, and will do its work well. The cork is superior in many respects for producing really good work, but, unfortunately, it does not wear well, and is therefore not so serviceable for general use. Suitable pieces of cork may be procured at the cork cutter's, and should be chosen with as few holes or bad places in it as possible, close in the grain, and firm in texture. The cork cutter himself will be the best judge, and he will, for a trifling extra charge over and above the price of the cork, trim and square it into shape, and cut it up into the sizes required, ready for cutting into combs, which will of course be done in the manner before described for gutta percha. These combs should, in the first instance, be quite as thick as the cork will allow when trimmed and made level, in order that when the teeth get worn, the edges may be again squared and the teeth recut, thus economising the cork to the fullest extent. The cork when properly cut makes excellent work, clean, sharp, and distinct, and yet leaves a glaze

of colour on the lightest parts sufficiently strong to show the figure or markings.

The importance of good combing cannot be over-estimated in imitating oak, and we have no hesitation in saying that no oak graining can be considered good work except the grain is well imitated. Many grainers scarcely pay any any attention to the combing, and seem to think it but of secondary importance. They are quite content if the figure is only shown strong enough; and some, in fact, do not care to comb the work at all, but lay in a dark graining colour, and just stipple it or streak it with a duster, and then wipe out the figure, which style of figuring, as a rule, stands out so strong and positive that it is the first thing one sees on going into a room, and on outside work it can be seen across a wide street. Now we condemn this class of work as utterly opposed to good taste, and vulgar in the extreme, and we are inclined to think that it is this staring vulgarity, so evident in much of the so-called oak graining, that has brought the art into such ill favour with men of good taste. This need not be so, for it is quite as easy, and will occupy quite as little time and labour, to execute it in such a manner that it will be as quiet and in as good taste as if it were the real wood, which is never out of place, or out of harmony with its surroundings.

We have now to describe the operation or process of graining oak by the oil colour method. It is a commonly received opinion amongst a certain class of architects that oak graining is a mere mechanical art, and that, as a natural consequence, any person of average intelligence can execute such work. No greater mistake could be made. It is true that numerous machines have been made and patented for effecting this purpose (an account of which we contemplate giving in a subsequent chapter), but with the single exception of one patent—which only professes to assist the grainer—the whole of them are mere make-shifts; none of them finish the work as they profess to do, but require the hand of the skilled workman to piece up and patch the work after them. There is also in machine work of any description, whether applied to graining or any other process, an absence of that character, or originality, which marks the work of the individual mind and hand. There is a charm and feeling about work executed by the hand, which gives it a value no mere machine work can possess. As we have before remarked, the grain and markings of oak are so varied in form that no two pieces can be found alike. Now, machine work, from its very nature, necessitates a repetition of pattern, which cannot be avoided. Hand work, on the contrary, can imitate every variety, and follow nature so closely that every piece may be different.

There is also in handwork a wide scope for the inventive faculty, and the exercise of good taste both in form and colour, and skilful workmanship. As a rule strong contrasts between the ground and the graining colour should be avoided. The figure and grain should, of course, be clearly seen, but only so clearly as to be distinct, without interfering with the general and uniform quietness of tone necessary to fulfil the conditions required by the laws of harmony. Violent contrasts and gaudy colouring are always vulgar; brilliancy and richness of colour are not necessarily so—it is the absence of the guiding power of knowledge and pure taste in the arrangement which degrades them to the rank of vulgarity. In this respect the colours of woods are the same as any other colours as regards decorative treatment, and require the same care in handling, or else discord is sure to result. Too much care cannot be exercised in avoiding these errors in colour and form.

We proceed now to the actual work of graining. The colour being properly mixed, we use a pound brush and brush over the work with it (technically rub in), care being taken not to put too much on, or else it is very liable to be dirty. A dry duster (dusting brush) is now used to stipple with (*i.e.*, stipple, to dab it all over with the ends of the brush), which, if properly done, will distribute the colour evenly over the surface, and clean it out of the quirks and mouldings. It is now ready for combing. In the real oak it will be found, as a rule, that the grain is invariably coarser on one side of the panel than the other, this arises from the nature of its growth; it is therefore as well to imitate this feature, and in order to do so, we take first a medium or coarse-cut gutta percha comb, and draw it down one side of the panel, using a little pressure, and then use a little finer comb to graduate or break the fine into the coarse; this should leave the marks of the grain in clear unbroken lines from top to bottom of the panel. We now take a fine-toothed steel comb and go over the whole of the previous combing; but in drawing this comb down, we either move it in a slanting or diagonal direction across the previous grain, or draw it down with a quick and short moving motion or curl. Both the former and the latter motion will break up the long lines left by the gutta percha comb into short bits, which represent the pores or grain of the real wood. It will be obvious that there are several other motions of this comb having the same end in view, and by using the narrow sides of the gutta percha or cork combs, in conjunction with the narrow steel one, an infinite variety of grain may be produced. Some grainers are in the habit of using coarse steel combs, with one or more folds of thin rag placed over the ends of the teeth; but this is a style of combing which has nothing to recommend it, and very much may be said against its use.

(To be continued.)

A NEW APPLICATION OF AN OLD PROCESS TO THE DECORATION OF TILES, PLAQUES, VASES, AND CERAMIC WARE GENERALLY.

CHAPTER II.

Etching.

IN etching upon china or earthenware by means of powerful acids, great care is requisite in the mixing and laying on of the grounds, so as to enable them to effectually resist the action of the acid. There are several mixtures used for making etching grounds, and in this, as in everything else, each artist has some speciality which he thinks better than any other. We shall give here what we have found to be the best resisting medium for the purpose.

It must constantly be borne in mind that we are not describing etching on copper or zinc, although, by using a different acid, the same process will apply, as also in etching on glass.

On Grounds.

The essential qualities of a good ground are—First, a complete and perfect resistance to the action of the acid. Second, a perfectly smooth and level surface, totally free from grit, dust, or other foreign substance—this is essential, for if there be specks of dirt or grit mixed with the ground, the acid will quickly eat or destroy them, and then it eats away the china, making holes in places where they are not wanted, thus spoiling the work. Third, a good etching ground should be firm, so as to allow the tracings to be made upon it, yet not brittle, but sufficiently soft to be easily removed by a scraper or needle point. Fourth, the ground should be easily removed and re-applied.

Rembrandt, the celebrated painter, gives the following as a ground for etching: white wax, 30gr.; gum mastic, 15gr.; asphaltum or amber, 15gr. The mastic and asphaltum were pounded separately in a mortar, the wax being melted in a pipkin or earthen pot, and the other ingredients were added little by little, the whole being kept well stirred until thoroughly melted and amalgamated.

Callot, the celebrated etcher, gives white wax, 60gr.; amber or asphaltum, 60gr.; gum mastic, from 30 to 60gr., according to the heat of the weather. The hotter the weather the more gum required, this giving hardening quality. As will be seen, the hardness or softness of a ground will in some measure depend upon the state of the weather, and, in consequence, the ground will require more or less of the softening or hardening ingredients in accordance with that principle, for on a very cold day, a ground that will behave well in a mild temperature, will shell off. The soft grounds, however, are pretty safe in all weathers, but will not bear handling, as the slightest touch will bring off the ground; it is safer, therefore, to err on the side of softness, which is the wax, than on the hard resinous ingredient.

A very simple and effective ground may be mixed with Brunswick black and white wax, in the proportion of about 1oz. of wax to 4oz. of Brunswick black, but in every case a trial should be made before commencing any important work. One of the best grounds, however, is the following: melt beeswax in turpentine, then strain it through fine silk; let it be perfectly fluid. To this, add about one-sixth of the quantity you have of the fluid wax to black Japan or Japan varnish; varying the quantity of "Japan" according to the heat of the weather, allowing more if it is hot, and less if it is cold.

The Laying on of the Ground.

The manner of laying on this ground will vary according to the shape of the article, whether it be a flat tile or plaque, or a vase or other moulded shape.

Before laying on the ground, it is necessary that all the other parts of the tile or vase should be protected from the action of the acid. This may be done by coating the back and edges of the tile, or the exposed parts, with Brunswick black, or black Japan. Every part, with the exception of that upon which the ground has to be laid, should be thus treated.

The tile or other article must be made perfectly clean and free from grease; this may be done best by cleaning it with whiting. The hand should not touch the surface, or the ground will not hold fast in that place.

In laying the ground on flat surfaces, the composition should be poured upon them and allowed to drain off, the article at the same time being turned round, so as to cause the ground to lay equal in body all over. This method cannot be used in the case of a vase, and these, and like shapes, may have the ground laid on pretty freely with a brush, and then turned about until it is uniform in substance all over the part to be etched. When a quantity of articles have to be done, the vases may be dipped into the composition, and manipulated as before.

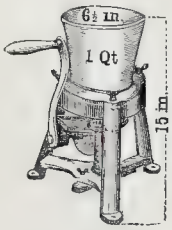
For etching with the point on copper, it is usual to hold the plate over the smoke of a wax taper or candle until the ground flows even, and is blackened by the smoke. This enables the etcher to see his work better, and takes off the glare of the polished surface of the varnish ground; but for our purpose we do not require this. When grounded, the article should stand for a few days with the grounded side leant up against a wall, so that the dust will not settle upon the surface while it is soft. It will then be ready for etching.

(To be continued.)

Trade Intelligence.

WE have received from Messrs. John Line & Sons, of Reading, their Pattern Book of Paperhangings for 1881. The collection is undoubtedly one of the best and most useful we have seen; all tastes and pockets are consulted, and those who seek to combine the desideratum of modern trade—a good article at a moderate price—cannot do better than get one of Messrs. Lines' books. A specially liberal discount is offered to the trade.

During the past month prices have remained steady and firm. White lead still keeps very low. Oils are quoted at 25s. and 25s. 6d., and may be bought with advantage, while turpentine remains stationary at 34s. to 35s. The tendency in the latter will be to lower prices, so that, without there is an immediate necessity for it, the purchaser will do well to wait a little while.



We note that Messrs. Edward Power and Co., of Coventry, have taken up the Agency for Edwards's Improved Paint Mills. No painter's shop is complete without one of these "Economisers," if we may apply to them a term that so aptly describes their work. Tradesmen who have not already got one should lose no time in adding so useful an article to their working plant.

Messrs. Heywood, Higginbottom, and Smith, of Watling Street, and Hyde Road, Manchester, show a very good collection of machine goods for the present season. The washable oak dados for which this firm are so well known, are of excellent quality. A series of papers forming a portion of the Melbourne exhibits, are very bright and cheerful.

Trade still continues very quiet, the severity and prolongation of the cold weather, keeping back orders that otherwise would now have been in process of execution. This is especially the case in Lancashire and the North, great numbers of plasterers and painters being out of employ. A Glasgow correspondent writes that the painting trade there still remains flat and quiet, and a large number of men are idle. The advent of March, however, cannot fail to produce a change in the aspect of affairs, and the prospect of spring will be a cheering one to many of our readers.

Answers to Correspondents.

MR. J. W. TAYLOR.—You seem to be labouring under some misapprehension as regards the practical nature of the dado borders. We have been in the habit of designing these things for our own use for a great number of years, consequently we are not likely to send out unworkable borders. We perhaps ought to have stated in our description of them that the small dots and lines across the ornament, and on the ground, are simply to indicate colour, and are not intended to be cut out.

MR. W. T. DALE, LANARK, N.B.—The best cement for affixing glass letters to glass is made with dry white lead ground very fine in japanners' gold size to the consistency of thick paste. A straight-edge is fixed on the window on the line to which the letters are to be fixed. The letters are then done over with the composition and put in their places. The straight-edge keeps them there until the cement is set, when it may be taken away, and the cement cleaned off from about the letters. If the letters are to be placed on a curved line, a wooden template of the curve required will have to be used. Wood letters are sometimes fastened with sprigs, but they may be cemented on a facia by using a cement made with thick patent knotting. To the ordinary patent knotting add as much shellac as will make it into a thick liquid about the consistency of treacle. Coat over the back of the letters with this and let it dry. When dry give them another coat, which will soften the first one, and before it gets dry place the letter into the position it has to occupy. The two coats of this composition will form a sufficiently strong and adhesive cement, which will not be affected by wet, and will hold fast enough.

MR. WM. GRAY, MOTHERWELL.—We regret the omission you name, which we rectified in our last number. We are glad our efforts meet with your approval.

MR. A. J. LACEY, NORWICH.—Thanks for your kind words of encouragement. We cannot see our way to carry out your suggestion. Would not the case be met if you used body colours (*i.e.*, mixed with Chinese white)? You would then get sufficient density of colour to hide the lines where you require.

MR. J. W. H. COX, PLYMOUTH.—With this number we publish design for ceiling, which completes the decoration for drawing room. Your remarks coincide with our own views on the subject. Thanks for your practical sympathy.

NEWLY-PLASTERED WALLS.—We beg to say that the subject is of such importance that we prefer to devote a special article to it in our next month's issue, not having space in the present one to do justice to it. Meantime we cannot do better than recommend you to use the transparent "Duresco" as being most likely to answer your purpose.

MESSRS. SAUNDERS, CIRENCESTER.—We regret you were unable to forward us the particulars named. We shall be pleased at any time to meet your wishes in the direction indicated.

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"Of all God's gifts to the sight of man, colour is the holiest, the most divine, the most solemn."—*Ruskin.*

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.

CHAPTER V.

Preparatory Processes.

BRUSHES that are used for varnishing require to be treated in a different manner to the common paint brush, inasmuch as water is totally unsuited to keep them in, as water causes the varnish remaining in the brush after being used to become fat, that is, thick and leathery, and turns it white, and becomes nitty. Varnish brushes require considerably more care to be bestowed upon them than, as a rule, they get, and the best varnish may be, and in fact often is, spoiled by using a dirty brush. A writer in a recent number of the *Scientific American* recommends varnish brushes to be kept in slow drying varnish when not in use. This plan may answer if the brushes are in constant use day after day, which is rarely the case except in large shops and japanners' workshops; but its fallacy, as applied to the house-painter's varnish brushes, will at once be evident if we consider that they are put away for a fortnight or a month at a time, and sometimes much longer. In that time even the slowest of slow drying varnishes will skin over and the brushes get foul and dirty. If varnish brushes are to be kept in this manner, we prefer linseed oil to any other medium. The brush should be cleared from the varnish as much as possible by scraping over a palette knife. It should then be placed in a tin can having a zinc or wooden lid, with a hole through it for the brush handle. The tin should be only large enough to contain one, or at most, two brushes, being more easily kept clean, and the oil renewed when required. The brush should be immersed only so far as to cover the bristles, the ends of which should not touch the bottom. These various plans are generally adopted for convenience and to save time, but we have invariably found in practice that the best plan for preserving a varnish brush clean and free from nitts is to wash it out—that is, if it is not going to be used for a few days. We recommend that it be first rinsed out with turpentine, and then thoroughly washed out with soap and hot water. With a little care and attention every particle of varnish may be removed from the roots of the bristles, and the brush put away perfectly clean and ready for the next job. There is no other method known to us whereby varnish brushes can be kept free from nitts and in first rate working order.

In order to produce good work in the painting of walls and plaster work generally, it is necessary to use a wise discrimination, and to observe certain rules both in the mixing of the paints for use and in using them after they are mixed. As we have before observed there is a difference in the absorbent powers of certain cements and ordinary plastered walls, and there is just as much difference between the absorbent powers of the ornamental castings in plaster-of-paris and ordinary plaster work, and indeed of any work which is finished with the trowel. Plaster casts are of a very thirsty nature, and will absorb a very large quantity of either oil or water, and if there is too much white lead in the paint with which these castings are first painted, they are apt to clog or fill up. They should, therefore, be painted the first time with colour having more oil in it than that used for the walls. This is the more necessary as its neglect often spoils the sharpness of the finer parts of the ornamental work. There is also another advantage in using the first coat thin, *i.e.*, it sinks further into the body of the plaster, and in time forms an exceedingly hard and firm surface which serves as a protection to the work. Many painters make a practice of giving the walls a coat of clearcole (glue size) before painting in order to fill up the pores and prevent absorption, and also between the two last coats in order to make it bear out or present one uniform surface, so that the

omission of one or two coats of paint may not be observed when the job is finished. We cannot find words strong enough to condemn this practice, in the first place on the score of its dishonesty, and secondly because of its ultimately causing the paint to crack and peel off. Under certain conditions we have seen the paint shell off in large blisters and sheets, entirely caused by the use of size, and it may be safely asserted that glue size used upon paint is always deleterious, and cannot in any case be used with advantage to the work. It may sometimes be expedient to employ it, but it is better in all cases to dispense with it, if possible.

In laying on the paint care must be taken that it is laid on evenly and without showing the marks of the brush. This is quite as necessary with the first coat as with the last, for if carelessly or badly painted in the first coat, much after labour will be required to rectify it, and in many cases it will remain a grave defect. If care is taken to avoid this fault a deal of trouble will be saved, and the work will be all the better at the finish. Unfortunately, carelessness in this respect is the rule, and carefulness the exception, the workman often trusting too much to the subsequent coats of paint to cure an evil which by common care might be avoided at the beginning. The paint should be laid on and well crossed, and when it is laid quite equally, with no more in one place than another, it should be laid off softly and not with the full weight of the brush. By this means the work will present an even surface, free from the marks of the brush; but if much pressure is used the work will be streaky and the paint will stand in ridges. This is a very common but a very serious defect, always spoiling the work on which it appears, and therefore care should be taken to avoid it as much as possible. A good plan to attain this desirable end on broad work, such as walls and ceilings, is to use a partially worn flat or stock brush, or a two-knot copper-bound brush for laying off with. We can thus lay off a wider space at one stroke, and are less liable to leave an uneven surface.

The second coat on walls should be mixed with about two-thirds oil to one of turpentine, and have a good body of lead in it. The same care should be bestowed in laying it on the walls as before, but previously to commencing to lay on the second coat the walls should be rubbed down with fine sandpaper, in order to remove any rough or foreign matter that may have got into the paint; and all places or holes which may have been overlooked in the first stopping, should now be faced up with hard stopping, great care being taken that the places thus filled up do not stand up above the surface. The third coat should be a mixture of two-thirds turpentine to one of oil, keeping the same proportion of lead to thinners as before. It must be observed here that the more turpentine there is in the colour the quicker it will have to be worked, as the turpentine evaporates so quickly that the paint sets or gets stiff very soon, consequently it is best to paint a strip of the wall about eighteen inches or two feet wide from top to bottom. By working in this way the paint may be kept sweet or wet together, thus enabling strip after strip to be worked one into the other without showing any piecings or joinings when the whole wall is finished. We thus get a perfectly level and uniform surface, but if too wide a space is painted at one time, the edge of the preceding one is liable to set before it can be properly worked in and laid off, and so the work will show a mark of piecing between each strip. The fourth coat will require to be painted with gloss colour, *i.e.*, having a preponderance of oil in its composition.

(To be continued.)

OWEN JONES AND HIS CONTEMPORARIES.

CHAPTER IV.

"The Grammar of Ornament."

THE Propositions we are now about to consider were the result of long and profound study on the part of their author of the best art styles of past ages, carefully analysed and compared, and they remain a splendid testimony not only to the unwearied devotion which he evidenced, but also to a subtle and quick penetration of what was best in art and what were the teachings of nature.

Proposition I. we may pass over as beyond doubt and cavil, and content ourselves with simply inserting it here.

PROPOSITION I.

"The Decorative Arts arise from and should be properly attendant upon Architecture."

PROPOSITION II.

"Architecture is the material expression of the wants, the faculties, and the sentiments of the age in which it is created. Style in architecture is the peculiar form that expression takes under the influence of climate and materials at command."

The universal experience of art in all climes attests the truth of this proposition.

The Egyptian built for the "Ages"—hence not only the grandeur of their buildings, but their stability—hence, too, the peculiar developments we find in those remarkable monolithic structures the pyramids and obelisks. Undoubtedly this was facilitated by the command of material they possessed—the quarries of Syene and the geological formation of the country giving them an unlimited supply of stone.

Greek art found its highest expression in their temples. The artist of Greece lived for their adornment, he strove to excel so that he might the more contribute to the glory of his deities.

Roman architecture assumed a form and character that was unique, and in complete consonance with the Roman cast of mind. The engineer triumphed over the artist, consequently Roman architecture impresses us more with its extent and utility than with its beauty.

The intense religious feeling that pervaded men's minds in the middle ages gave rise to those wonderful creations of genius, the cathedrals of Europe. While (to glance for a moment at the converse side of the picture) the *want* of any systematic art knowledge in our own country during part of the last and present century, evolved those melancholy creations of architectural genius peculiarly identified with the reign of the House of Hanover.

PROPOSITION III.

"As Architecture, so all works of the Decorative Arts should possess fitness, proportion, harmony—the result of all which is repose."

This Proposition brings us face to face with the very *sine quâ non* of all true Decoration, and is the most important of the entire number. The Proposition resolves itself into three parts—Fitness, Proportion, Harmony. It is our intention to deal here only with the first, and reserve the consideration of the second and third qualifications until we come to Propositions IX. and X.

Fitness, in relation to ornament, is so essential and self-evident that our first impulse is to dismiss its consideration, as being beyond the region of doubt, and belonging to the domain of axioms.

Although this is the case, and notwithstanding the fact that ninety-nine out of every hundred individuals would give you their ready assent to this thesis, there is no rule, simple as it is, that gets more violated, and this not only by unlettered men, but by men who set themselves up as "guides" and "lights" shining in dark places. We can hardly walk along any of the principal streets in our cities without finding this law transgressed in both past and contemporary architecture.

Here you have a building that commences on the ground floor in one style of architecture, finishing at the roof with not only another style, but one quite apart and in a sense antagonistic to it. Not in architecture alone are these errors committed, but unfortunately we see the same thing repeated over and over again in decoration. Quite recently we saw a lithographed drawing of a pediment filled with carved stone work, the genius of the designer being so "catholic" that about four distinct "styles" appeared.

This question of Fitness enters so largely into our every-day experience, that, as a condition of good ornament, we cannot insist too emphatically on its importance. It is a law that operates all through nature, and its presence redeems and renders beautiful those creatures which, apart from their exquisite adaptation for the office and functions they are here to discharge, are regarded as loathsome and repulsive—beautiful, that is, when viewed in the light of their fitness for the purpose of their being. It is only when we come to consider man's work that we perceive the want of and necessity for crutches and aids.

This question is felt to be of primary importance in all the relationships of life; hence the homely proverbs we meet with in our "folk-lore." "The right man in the right place," and numerous others that will occur to our readers, will show how deeply ingrained this feeling is, and how it underlies—to an extent perhaps greater than we are aware of—our estimate of men and things. An engineer will describe his engine as a "beauty," and if you seek an explanation of his meaning, you will find it not in its lines or shape, but in the way it does its work. A sailor will apply the same terms to his ship when he wishes to convey to you its speed and its thorough sea-worthy qualities.

In judging, therefore, of ornament, its "fitness" for the office or function it is supposed to discharge will be the *first* element that will enter into our calculation. An instance of its disregard came under our notice the other day. Our attention was drawn to some carved ivory on the handle of an umbrella, and very beautiful it was, but for fulfilling the conditions of a handle it was sadly deficient. Instead of a form that could be readily and securely grasped, the shape was subordinated to the necessities of the ornament, and we could conceive nothing more uncomfortable to carry, or more liable to hurt the hands of those who held it. Here was an instance of skill and talent in a large measure wasted, and in addition a good handle spoiled and rendered almost unfit for use. The *desideratum* in a handle is a shape that can be easily held; not an article you dare hardly grasp for fear of hurting yourself or damaging the carving.

The artists of the middle ages realised this to the full. The handles of daggers, stilettoes, and other weapons, were most elaborately ornamented, but they were so done that the decorations *added* to the security of the grasp; and indeed this was the aim that the artist ever kept in view, and with the most gratifying results.

If we are designing a chair we must set before ourselves, as a matter of primary importance, that our chair is an article to sit upon. Absurd as it may seem to have to say this, it is not an unnecessary statement. "Hodge and his Razors" is not only a very diverting composition, but it hits off a very common fact of our daily experience, and there can be no doubt that a large amount of furniture is made not for use "but to sell."

If we are designing for potters' ware, regard must be paid to the same considerations that obtained when we made the chair. Having carefully thought out the

shape best calculated to fulfil the service for which the vessel is designed, whether it be a vase, a bason, or a teapot, and having given to its form all the stability and strength we can consistently with the material we are using, then, and not till then, may we proceed to render it beautiful. And so through all the range of art work we must ever bear in mind that ornament must be subordinate to its purpose, otherwise it becomes an excrescence, and to the extent that it is so it frustrates its own ends.

The remarks of Sir Digby Wyatt on this question will be appropriate here. In the preface to his work on "Metals," published in 1852, speaking of the attention and interest that was then manifesting itself as an outcome of the Great Exhibition, he says:—

> One of the most important of those general laws that have been given to us as the result of such enquiries, is that of the imperative necessity of adopting, as the basis of the design of objects executed in any materials nature offers to our use, a system of ornamentation strictly in harmony with the structure, chemical and mechanical, of the finished article—with the value of the material of which it is composed—an association of idea connected with them and with its purpose and probable destination. The system of decorative treatment of two materials, *similar* in some essential qualities, but *diverse* in others, should differ in the *exact ratio* of these discrepancies, and from the continual and thoughtful observance of this *objective* condition of nature, a scale of common-sense designs would be in time established, within which the artist might exercise his *subjective* power without fear of extravagance."

Before concluding this, we would notice that in reference to surface decoration several considerations combine to guide our decisions in the matter of fitness. First, regard must be paid to the architectural style of the building we are decorating, bearing in mind always that the decorative arts are attendant upon architecture, and not *vice versâ* as frequently appears. Having determined this most important point, we must next consider the *position* our ornament is to occupy. Yet this is a consideration that is repeatedly overlooked. An anecdote relating to the greatest sculptor Greece ever had will illustrate our meaning. Phidias and Alcamenes were competitors in making a statue to Minerva, to be placed on the top of a column. When they were exhibited the work of the latter appeared so perfect, as seen on the ground, that it was universally admired, while that of his rival appeared but a rough sketch. But when both were seen from their destined situation, the beauties of Alcamenes' statue were lost, whilst that of Phidias produced a most striking effect, and gained for him the honour of the award. Here the secret of his success was the regard Phidias had in designing and executing his figure to look well, not from the floor of the studio, but on the top of the column it was to adorn. And all ornament, for whatever purpose to be used, must be subjected to the same laws if it is to be successful. That is to say, in designing, consideration must be had first, to the material the design will be carried out in; secondly, to the purpose it will serve when completed; and thirdly, to the position it is to occupy.

It will be apparent at once that if we are designing for fabrics of a full heavy nature, into which the design is woven, the entire character should be formed and modified by that fact, while if we are designing for, say, parquetry work, the knowledge that we have to deal with materials that do not lend themselves readily to elaborate curves, and the further fact that it will be for the covering of large floor surfaces would, or should, sensibly affect the nature of our design.

(To be continued.)

ON THE MATERIALS AND TOOLS USED BY THE HOUSE PAINTER AND DECORATOR: THEIR PROPERTIES, COMPARATIVE VALUE, AND USE IN THE TRADE.

CHAPTER IV.

ALBARINE (NOT ALBARINO).

WE take this the first opportunity of rectifying a mistake that through the inadvertence of our draughtsman appeared in our last issue.

For the past ten years the Yorkshire Varnish Co. have made and supplied to the trade a very fine white enamel, called Albarine.

The trade knows well the difficulty there exists in making enamels by the mixing of varnish with white lead. Unless the very finest of varnishes be used discoloration always takes place, and where very light pure tints are needed this is a fatal drawback. Albarine was first projected by the proprietors and manufacturers for the purpose of remedying this difficulty. It has a pearly-white appearance, and is of a beautiful fine texture and body; readily tinted, which should only be done with the finest ground colours, so as to preserve the smoothness of the material; it also flows freely from the brush.

To those who have not yet tried it we confidently commend it to their notice.

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND REVISED FROM THE HIGHEST AUTHORITIES, ENGLISH AND FOREIGN.

CHAPTER III.

THE origin of the hereditary arms of Hay is thus related: When the Scots fled before the Danes at Long Cartey, a husbandman named Hay, then ploughing with his two sons, snatching the yoke in his hand, stopped the pursuit of the enemy, which gave his countrymen time to rally. Kenneth III. rewarded his valour by the gift of as much land as a hawk should fly over at one flight,

and in the village of Hawkstone the place is shown where the bird settled. From this circumstance arose their crest. In the shield are three escutcheons, gules, which were given them because they threw themselves between the king and the enemy and thus rescued him.

Kingdoms, countries, corporations, and cities, had devices or arms at a very early date. The University of Oxford claims its arms as far back as the year 885, having been then presented with them by the renowned Alfred the Great. They were a blue Bible with seven seals appendant, opened at St. John's Gospel, between three crowns of gold. Fuller imagines these three crowns to be typical of the three professions Alfred founded. The arms of Wales, borne by their ancient sovereigns, were—quarterly, gules, or, four lions passant, countercharged. The cross of St. Andrew, we are told, was assumed as the arms of Scotland as early as the year 518, and the harp as the device for Ireland, at a much earlier period. The ancient arms of England, viz., a cross, formy, or, were borne by Egbert as early as the year 800, to which four martlets were added by Edward the Elder, his grandson.

The simplicity and antiquity of heraldic devices, are remarkably manifested in the original arms of France—the lily, or *fleur-de-lis*, adopted in allusion to the Salic law, by which women are forbidden to reign, lest the sceptre should take the place of the distaff. "*Neque laborant, neque nent*" ("They toil not, neither do they spin"), was the motto generally affixed to them. Of the origin of this bearing, however, and whether they were bees, toads, or spear heads, there appears to have been much difference of opinion. A single lily continued to be the bearing until the reign of Louis le Jeune (A.D. 1147), when their number was increased. Voltaire was of opinion that the number of lilies in the Gallic arms were never constant till the time of Philip Augustus, and not till after his signal victory over the Germans, with the Emperor Otho IV. at their head. Otho's imperial standard was carried on four wheels. It consisted of a long pole or staff, to which was fastened a painted dragon as the emblem of destruction, over which was raised the imperial eagle of wood gilt. The royal standard of France was a gilt staff, with colours of white silk powdered with golden *fleur-de-lis;* "And now," says Voltaire, "what had been long the fancy of painters only, came to be the arms of France."

From what has been stated, it clearly appears that symbols or emblems analogous to what are now termed heraldic devices have existed in all ages, and in all countries, and that many of them were, from the earliest periods, considered as hereditary. In the early days of heraldry men took for their armorial bearings those things which were most useful or natural to them in their various pursuits. Thus the falcon, the greyhound, the talbot, the bugle horn, from the sports of the field, or the figures of the animals hunted were chosen. In the days of paganism and gross superstition, monsters of all conceivable shapes and colours and mythological figures were pressed into their service; such were the early symbols employed in Wales. It was natural they should place on their shields the figures of wolves, the destroyers of their flocks and of their children, which they hunted, and also of goats, which furnished them with food. A wolf issuing from a cave or a cradle under a tree, a child attended by a goat, &c., are Welsh emblems. The art of blazonry, by appropriate marks, was made capable of distinguishing the different relations (brothers, &c.) of the same family, so that it might be told at once, on inspecting a gentleman's shield, whether he was of the first, second, third, or any other branch of that family or house, and whether of the first, second, third, or fourth brother of the respective branch. These marks are called distinctions of houses.

Coronets were first granted to subjects in the reign of Edward II. In most countries those elevated, by their high rank, into hereditary counsellors or peers of the crown, have been distinguished above the inferior orders by an ornament resembling the diadem of royalty. But in Scotland, however, the nobility in ancient times seem not to have had this distinction. In old registers, in old seals, in churches, the arms even of earls are not dignified with coronets (a distinction presumably not granted to them before the days of James V.), and it was only in 1665 that these princely establishments were granted to lords. The first instance of quartering arms in England was in the reign of Edward III., who granted that authority to John Hastings, earl of Pembroke. Earldoms had been the highest dignity the younger sons of sovereigns had hitherto borne. They were now advanced to dukes.

Knighthood had now become so common that it was not held in so much esteem as formerly, and Edward instituted the Order of the Garter—the insignia of which noble order the greatest monarchs have thought it an honour to wear. It appears that the title of marquis was first created in the reign of Richard II., about the year 1390, and the Order of the Bath was revived in the reign of his successor Henry IV. In the splendid reign of Henry V., although no new orders or titles of dignity were invented, yet all the nobility who had fought with distinguished bravery and success in the memorable battle of Agincourt were allowed to take whatever armorial bearings they thought proper. The title of esquire now became general, and an inferior race of gentry were distinguished by the name of gentlemen.

The title of Viscount had its origin in the reign of Henry VI., and was made an hereditary honour. In this reign an inquisition was made of the gentry

throughout the kingdom, and a list of the names then recorded is preserved in the Herald's College.

Many of the younger sons of the poorer nobility at this time engaged in trade, and did not lose caste on that account; for though to some extent they were looked down upon, they still retained their gentility, and were entitled to arms. There were also two lower orders of men, who ranked at this period between the gentleman and the workman and labourer. These were called *franklins*, or freemen, who possessed sufficient land to maintain themselves without manual labour. The other men, called *yeomen* (meaning commoners), were resident upon and farmed their own lands. These two orders of freeholders were a numerous and sturdy race, and claimed, and in fact formed what was called the third estate or power. Many of these families were very wealthy, and had been in possession of their estates from long before the Norman conquest; and many of their descendants in the present day are so proud of their unbroken line of descent that they have repeatedly refused titles of rank, and prefer to remain plain esquires as their fathers were.

The final overthrow of the House of Lancaster, which placed the crown on the head of Edward IV., gave rise to a great number of new bearings in England, but ruined many of the old nobility, their lands and honours being given to the adherents of the House of York. Henry Holland, duke of Exeter, was so reduced that he begged his bread from door to door, bare-headed and bare-legged, until he reached the court of the duke of Burgundy, where he was allowed a small pension. The earl of Oxford was also reduced to the same straits, while his countess earned a miserable pittance by her needle. In fact, so reduced and poor had many of them become that a law was passed depriving them of their rank. The city of London, having played so important a part in the placing of Edward on the throne, was rewarded by many of its citizens and merchants being ennobled and granted armorial bearings, and made Knights of the Bath, and Edward himself became so impressed with the importance of trade and commerce to the welfare of his kingdom, that he began to trade himself, and became the principal merchant in his dominions.

(*To be continued.*)

"I know of no doctrine that appears to me so self-evident as that of the perfect natural equality of all conditions of mankind as far as the attaining of happiness is concerned. Health, wealth, and power are of no avail to an ill-regulated mind, and poverty and misfortune cannot long oppress the well trained and virtuous man."—*Fergusson.*

"Great art dwells on all that is beautiful, but false art omits or changes all that is ugly."—*Ruskin.*

OUR ILLUSTRATIONS.

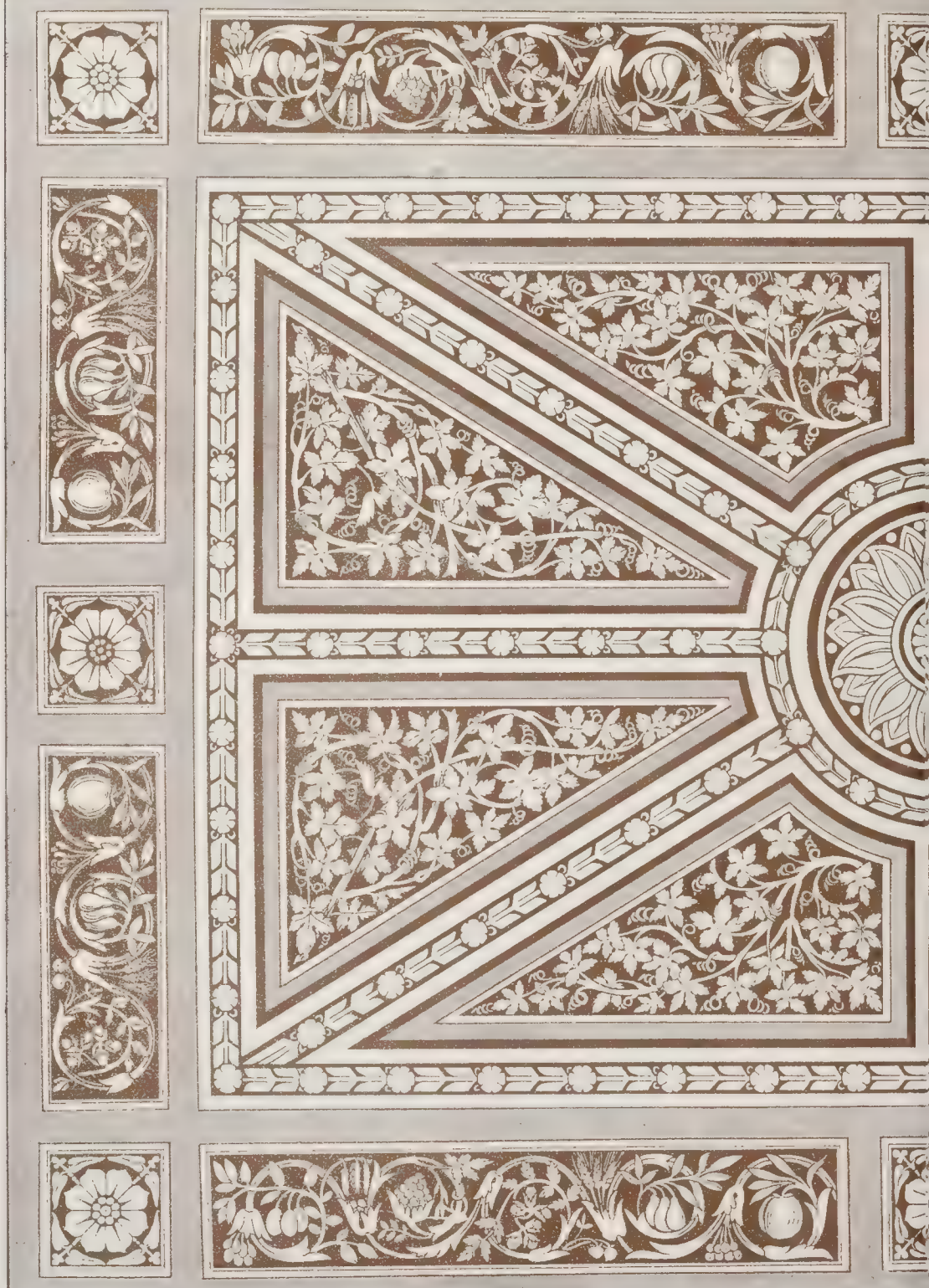
ORIGINAL DESIGN FOR DINING-ROOM CEILING; ORIGINAL DESIGN FOR PANEL DECORATION; DADO BORDERS.

SPECIALLY DESIGNED FOR THE "JOURNAL OF DECORATIVE ART."

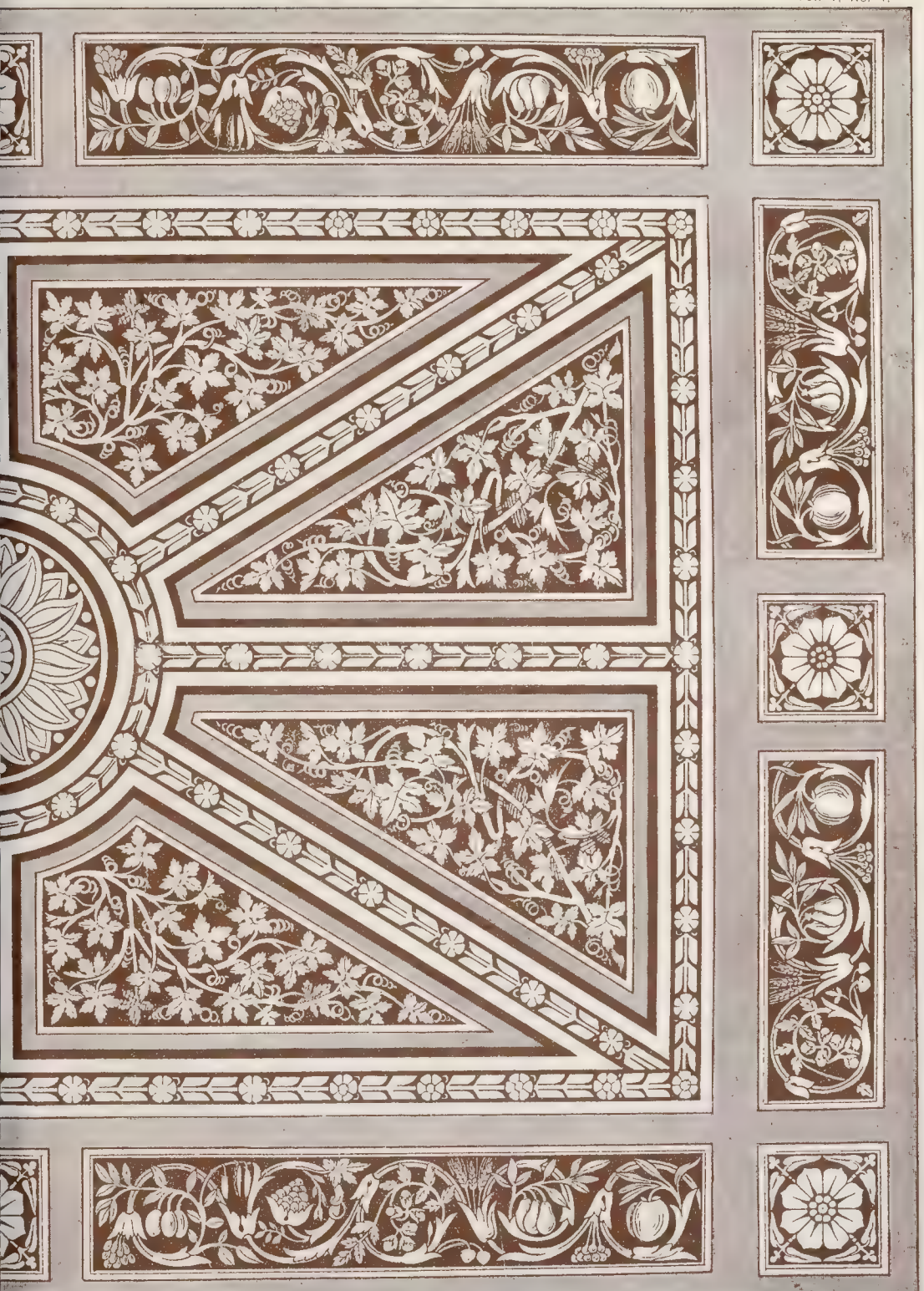
THE DINING-ROOM CEILING.



S will be observed, this ceiling is divided into eight panels, both panels and stiles being filled in with ornament having a plain band inside the panels. The border is also divided into panels, with pateræ at the corners and centres. Measured by the scale of one and a half inches to the foot, it gives us a ceiling 24 feet by 16½ feet, which is a very proportionably sized room. Of course the design can be enlarged or reduced. The panels are filled with a branch of the vine without the berries, and the border panels with various fruits. In colouring this ceiling we must have regard to the colour of the walls. Taking the colouring of the dining-room design in our February number as the basis of our scheme for the ceiling, we would first paint in the whole of it in one colour, which will serve for the colour of all the ornament and bands when finished, and this should be of a warm buff made from Oxford ochre, Indian red, umber, and white. Upon this we should set out the ceiling and put it in form. The centre flower may be in relief, either plaster, carton-pierre, or any other material, and picked out with colour or simply etched with gold upon the buff. The background of the panels may be stencilled in of a warm bluish grey, and the band between the panel and stile painted in of a tint of colour made from Indian red, white, and a little ochre. The background behind the ornament on the stiles, and which defines it, may be of a strong neutral green tone, the pateræ of the same might be stencilled in white, and would thus make so many points of light breaking up the long lines. The outer stile which surrounds the border panels may be of a warm neutral green tone having a little Indian red mixed with it, as before described, the background of the border panels being of the same colour as that of the centre panels, or they may be done of a dull shade colour, the making of which we have before described. The background behind the pateræ may be Indian red alone, or deep blue, or green same as the stiles. All the lines may be run in with a colour made from Indian red, umber, and ochre, just strong enough to define and emphasise each part. In executing this design on a ceiling, and after setting it out, we should cut two stencils of the size of the panels, the background being cut away to leave a good broad margin outside the panel. The leaves and stems will bind themselves and require few,



W.S. DESIGN FOR A DINING ROOM CEILING.



ECIALLY DESIGNED FOR THIS JOURNAL.

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if any, ties. This being a large stencil, we would get two or three thin boards and lay the stencil upon them, then lift them up to the ceiling, and fasten the stencil up with needle points. By this plan the stencil may be put up and removed without breaking it. Without some such method it would be subject to a heavy strain and liable to be broken. We should adopt the same plan with the border panels.

THE GREEK PANEL DECORATION.

We shall defer any remarks on the colouring of this design until we give the side of a room in the Greek style of ornament, but would point out that it may be divided, if required, into three designs or panels. The inner panel containing the figure with its line and ornament on top and base, would in itself form a complete panel for some purposes; so also would the lines and ornaments between it and the border, which latter might be used as a panel or as a border merely.

The sheet of borders may be used for many purposes which will suggest themselves to those who use them.

TO OUR READERS.

WE have received numerous letters from all parts of the kingdom approving of the subject matter and illustrations of our journal, and we feel proportionally gratified at the success of our efforts. Our readers may depend upon our using our utmost endeavours to keep up and improve the position we have acquired.

In the month of June we shall give a double-page coloured design for a Drawing Room, with chimney breast and "over mantel" included. Apart from its intrinsic value as a picture for framing, we feel assured many of our readers will derive much instruction from it, in harmony of colour, and purity of design. We are sparing no expense in making the chromo-lithograph a *fac-simile* of the original drawing; and as such works are calculated to improve the taste and increase the knowledge of the higher branches of the trade, we would ask our friends who feel an interest in the progress of art-knowledge, to draw the attention of the apprentices and improvers with whom they are connected, to the instructions and illustrations contained in the *Journal of Decorative Art*, and thus aid us in our efforts to plant the seeds of improvement which will ultimately bring forth good fruit.

Messrs. Agnew and Sons, in their Exchange Street Galleries, have got together one of the choicest collections of pictures of a miscellaneous character we have seen for a long time. The variety and general excellence are their own antidote against any fatiguing which so often accompanies picture viewing, and we return again and again, only to receive fresh pleasure on each visit.

Art Notes.

An Exhibition of the very highest importance to the decorators and art workmen of this country is being projected by a committee of well-known gentlemen, thoroughly representative of the awakening interest in decorative art. The Committee includes such well-known names as F. Goodall, R.A., T. J. Gullick, A. S. Lumley, and Geo. Augustus Sala. The proposed Exhibition will be held in May, and remain open to the end of August. Large and well-lighted galleries are now in course of erection, and will give ample scope for the display of exhibits.

The Exhibition will include all art manufactures, in whatever kind of material: furniture, porcelain, enamels, glass, Mosaics, tapestry, lace, textiles, designs for house decorations, drawings, &c., &c.

A very important part of the scheme is that the Committee intend making it an annual display, if they meet with sufficient encouragement to do so, of which there is not much doubt. All particulars and information can be obtained from the managing director, T. J. Gullick, Esq., 103, New Bond Street, London.

Bond Street is rich in Exhibitions at the present moment, there being no less than four open—Messrs. Agnew's galleries, the Hanover galleries, the Grosvenor gallery, and the exhibition of Mr. Millais's pictures at the Fine Art Society's Rooms.

Probably this latter is the most interesting of the number. Mr. Millais occupies a position unique among modern painters; the early years of his career being identified with the work of the "Pre-Raphaelite" school that created such a flutter amongst the "Art Conservatives" of forty years ago. The pictures the Society have got together cover the entire field of Mr. Millais's art, ranging from "Ferdinand lured by Ariel," painted in 1849, to "Cherry Ripe," made familiar to the public last Christmas through the pages of the *Graphic*.

The difference in years between the two paintings named is not greater than difference in style. Mr. Millais in later years threw off the worst traditions of the school he started with, while retaining its most valuable ones.

The Exhibition is made doubly interesting by the descriptive catalogue that accompanies, and the short but very interesting biographical preface written by Mr. A. Lang. This is exactly our idea of what a catalogue ought always to be, and the public would be the greatest gainers if it could be carried out. The proceeds of the Exhibition are to be devoted to some charitable purpose to be named by Mr. Millais.

The Annual Exhibition, at the Royal Institution, of the Manchester Academy of Fine Arts (just closed) was quite equal to if not above the standard of past years. While there were a large number of pictures very archaic in their character, there were also some of real sterling excellence.

Mr. W. J. Muckley, in Nos. 2 and 302, fully maintains his reputation as a painter of flowers and fruits. Mr. Wm. Meredith is to be congratulated on the very marked advance his pictures show over former efforts, "Silver Beeches" being instinct with light and atmosphere. "A Woodland Glade," by the same artist, is full of feeling and sympathy with his subject. "Down to the Thames," while good in composition, is spoiled by the broad splashy treatment that reminds one forcibly of a "drop scene.',

Conspicuous in the place of honour was "Waiting for a Nibble,' by Mr. Anderson Hague. Mr. Hague belongs to, and is the chief exponent of "The Manchester School." The fault may be ours, but we quite fail to appreciate the style of painting that is apparently circumscribed in its colours by green umber and black, and that substitutes big dabs of dirty colour for a lad's hand or a woman's face. This is not art, it is a mere travesty of it, and men with the undoubted ability of Mr. Hague are simply trifling with their powers and bringing them into contempt by such displays.

The contributions of Mr. Moxon Cook, though not very "catching" on a casual glance, improve vastly on acquaintance, and bear careful and continued inspection. Mr. Cook evidently goes to Nature, and paints her as he sees her, and not in obedience to the canons or dictates of any school or set.

"Rosebuds," by Miss Fanny Sugars, is a graceful bit of figure painting highly creditable to the artist.

Mr. Arthur Wasse, in his "Relic of Stormier Days," and his studies of "An Old Man" and "A Girl," shows a complete mastery of his subject. Mr. Selim Rothwell's "Bridge at Nuremburg" is a beautiful subject well painted, and the large studies sent by Mr. Letherbrow are very powerfully drawn, and the very antitheses of Miss G. Thompson's charming little sketches. Manchester has no reason to feel ashamed of its artists if they will only be true to themselves and to their art.

Mr. Ford Madox Brown has now completed his third painting in the large room of the Manchester Town Hall. The three are without doubt very successful paintings for their purpose, and we are of the opinion that Mr. Brown's genius lies in the direction of mural decoration. He is, at all events, faithful to his ideals, for whether it be the wife of the Roman general or the Saxon king, the type remains the same in each case. The three paintings are splendid examples of successful colouring.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

BY THE EDITOR.

CHAPTER V.

Oak Graining in Oil.

A NATURAL variation in the grain may be produced by one comb alone, according to the manner in which it is held in the hand: for instance, if we take a coarse-toothed gutta-percha comb, and commence at the top of a panel with the comb flat and at its full width, and draw it down in this position, it will leave a grain the same width as the width between the teeth of the comb; but if we start with the full width and gradually turn the comb, or incline it to one side, that is to say, on its edge, we thereby graduate the grain from coarse to fine, at pleasure. In fact, by this movement, and by holding the comb at a certain inclination, we may actually make a very fine grain with a coarse comb. This style of combing is very useful for varying the grain upon the rails and stiles of doors or other woodwork, and for defining the joints. A very great variety of grain may be produced in this manner. An important point, and one requiring strict attention, is the formation of the joints in the wood, as much of the effect of otherwise good work is lost in consequence of neglect or carelessness in this respect. In looking at a real oak door, the joints of the stiles and rails are clearly and sharply defined, not by any defect in the workmanship, but by the difference in the run of the grain; the stiles being perpendicular, and the rails horizontal. The rails being cut sharp off by the stiles show a perfectly straight line. The light also acts differently upon the two, simply because the grain or fibre of the wood is exposed to its influence under different aspects. This latter cause also tends to produce a difference in the depth of colour of rails and stiles, and panels as well. It will be at once evident that no imitations can be considered really good that do not include these important points.

It is a common practice with many grainers to imitate a broad piece of what is called the heart or sap of oak upon the lock rail of almost every door they do, and many of them are not even content with that, but also daub the stiles over with it, from top to bottom. There is nothing more vulgar or in worse taste. If a joiner in making an oak door were to put such wood into the rails and stiles the work would be at once condemned by the architect, and very properly so too, simply because this part of the oak is not considered good and is hardly ever used in good work. We like to see the heart of oak well imitated, but it should only be done on those parts of the work in which it would appear on a real oak door, namely, on the edges of the door, and on mouldings. On these parts the joiner cannot avoid it, because we see as it were two sides of a square; for it depends upon the way in which the tree is cut into planks as to whether the board will show the grain and figure, or whether the heart and sap is seen. If we examine the stiles of a real oak door and see grain and figure on the stile proper, we are sure to see heart and sap upon the edge of it. The wood may of course be cut so that we get the heart and sap together; but in this form it is very rarely used, except for boat-building and for making coffins, scarcely ever for doors. This fact should be borne in mind by the grainer. If he does so, and strives to assimilate his work to what is right and usual in the real wood, there can be no doubt but that he will produce better work, and more in keeping with the real. There is a vulgar pretentiousness about what may be termed the sappy style of work, which is very undesirable.

The work being combed will now require to be figured. These figures—marks, or dapple, as it is variously termed—as a rule, cross the grain more or less abruptly, and are of course of different shapes, sizes, and forms; a knowledge of which can only be acquired by study of the real wood. This figure may be wiped out with a piece of soft rag held tightly over the thumbnail; there should be two or three folds over the nail, the superflous rag being held by the other hand to prevent it hanging down and smearing the grain; and every time a figure is wiped out the rag should be moved slightly, so that the same part of the rag shall not be used twice, thus ensuring clean work. It will happen sometimes that the thumbnail will get broken, or is too weak to stand the pressure; in these cases, or in fact in any case, a good substitute or artificial thumbnail may be made with gutta-percha: thus, a piece of gutta-percha about an eighth of an inch thick is put into warm water, and while soft is wrapped round the thumb up to the first joint; it is then pressed by the hand so as to fit and take

I



II



III



IV



W.S.

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the shape of the thumbnail at the end. This cannot be done at one heating; it will have to be put into the hot water again, and the end pinched and squeezed into the shape of the nail, and made to fit easily upon the thumb; when this gets hard it may be trimmed into perfect form with a penknife. This artificial nail will answer the purpose admirably if properly made, and even when the natural nail is good the false one may be used with advantage. Good figuring may also be done by using the blank or top edge of a steel comb, with a rag folded over it; both wide and narrow may be used. Those square or broad lights or figures we see in Dantzic oak may be faithfully imitated in this way. We have also used a piece of gutta-percha to take out the figure with; this should be square ended, about one inch wide, and four inches long, without the rag. Using this instead of the thumbnail very successful work may be done of a certain class, but not of the best. Some grainers use a piece of thin horn, in shape something like a spatula, about three or four inches long, and three-quarters of an inch wide, with rounded ends, and quite flexible. With this tool the figure is cut or scooped out—(we know of no other word which so aptly describes the motion required to effect this)—a sort of quick, side-long motion, very difficult to describe, and requiring a very considerable amount of practice before it can be worked with any success. There is, however, the same objection to this tool as may be urged against the gutta-percha for figuring, namely, that neither of them take the graining colour clear away, but leave a ridge or accumulation of colour on the edge of the figure, which is fatal to good work, and therefore we cannot honestly recommend the use of any method but the wiping out with the thumb-nail, or its substitute. When the figure is wiped out it will require to be softened. By softening we mean the imitation of those half shades seen on and about the figures in the real wood. Between and around the figures in oak there is always a lighter tint of colour. On the top edge, the figure, as a rule, will be sharply defined; but the other parts will graduate into the combing, the grain being fainter, and appear as if another shaving being planed off that the grain would be obliterated. This may be imitated by doubling up a piece of rag into a small roll, and with the side of this the grain in immediate contact with the figure is partially wiped away, but not to the extent of obliterating the grain. The grain must still be seen, but of course will not appear nor be as dark as it is on those parts on which it has not been disturbed. If this is done carefully, in and between the lights or figures as well, an exact imitation of the real wood may be produced. It is only by strict attention to these small matters that success is obtained.

(To be continued.)

A NEW APPLICATION OF AN OLD PROCESS TO THE DECORATION OF TILES, PLAQUES, VASES, AND CERAMIC WARE GENERALLY.

CHAPTER III.

The Acid.

THE acid to be used for etching on china and earthenware is the same as that used for etching on glass, viz., hydrofluoric acid.

Fluor Spar is found crystallised in cubes in Derbyshire and Cumberland. It is the chief source of the compounds of fluorine. When gently heated with sulphuric acid in a lead or tin capsule, hydrofluoric acid is disengaged, which has the properties of etching or corroding glass. It is this acid we use for etching upon china. There are two methods of using the acid, one by means of the vapour produced by placing fluor spar in a shallow vessel and pouring sulphuric acid upon it until the spar is covered. The action of acid upon the spar produces hydrofluoric acid in vapour. The article to be etched, when prepared, is placed over this vessel, face or etched side downwards, and the vapour (which is the acid) condenses upon the etching and gradually eats away or corrodes the parts left exposed to its action. The vessel with the acid in will, of course, require to be covered with cloth or wrappering, so as to prevent the fumes being wasted. The etching will have to be taken up and washed with pure water occasionally, to see how the acid is doing its work, and whether it has eaten deep enough, or if the ground is breaking up or standing firm. We have no absolutely safe guide in this case as to the strength of the acid, as that will depend upon the strength of the sulphuric acid and the hardness or otherwise of the fluor spar, some having a greater quantity of foreign matter incorporated with it than others, consequently, the strength of the acid will vary, and this is why it is so important to examine the work frequently.

The other method of using the acid, is to immerse the article in the hydrofluoric acid. For flat articles, such as tiles and plaques, the best plan will be to have an acid "well" made in the following manner. It may be made of ordinary deal or pine, being a simple square frame, having a square or sunk "well" in the centre, which, for flat articles, may be about three inches deep. This should be strongly made, and then coated inside with three or four coats of Japan black, and when this is dry it should be again coated with the black, and then covered all over with thin calico while the black is wet. The last coat of black will soften the previous coat, and the whole will form a strong glue-like substance, upon which the calico must be laid perfectly straight. When this is done and dry,

two or three more coats may then be put upon the canvas. By this means we get a perfectly water and acid proof bath for our work, much better and cheaper than gutta-percha or any other material.

It will be found always the safest and best plan to make a trial of the strength of the acid before submitting any important work to its action, and it should always be borne in mind that the acid bites more evenly and cleanly when not too strong. When the acid is used too strong it bites fiercely and makes ragged lines, and is apt to break up the ground by eating away the lines underneath the edges of the ground; about two-thirds water to one of acid is a tolerably safe strength to use for china.

Another important caution we would give to those using this acid, namely, to avoid as much as possible inhaling the fumes which arise from it while it is doing its work, it being a powerful solvent of animal matter and, of course, injurious. We would advise the greatest care in the matter, and when it is feasible a respirator may be used with advantage.

The Methods of Etching.

When the ground is hard enough and ready for work the design may be traced upon it by rubbing over the back of the drawing with whiting, chalk, or dry white lead. The design is laid upon the ground and the lines are gone over with a fine point of any kind, which transfers the drawing on to the ground in white lines. We now use the etching needle, and go over the lines on the ground, removing or clearing away the ground from them and leaving the china exposed; any broad parts, such as backgrounds, may then be scraped away by using flat steel scrapers or by any other tool that will effect the purpose. Another method may be adopted which obviates the necessity for scraping away the background, and may be done in the following manner:—First see that the tile is perfectly clean, then trace on the design in part, that is, only the outline of the figures or ornament, leaving the detail. We now take a brush or pencil and cover the figures or ornament with the etching ground, leaving all the broad parts, such as the background, which has to be eaten away with the acid, untouched, and when this is dry the drawing may be placed upon the parts covered, and the detail traced in as before, and then etched with the acid.

There is another process which will be found very effective for etching upon china, and may be called the brush process. The *modus operandi* is as follows:—Let the tile be cleaned thoroughly with whiting, and take care not to touch it with the fingers. Now crush a soft pastille or coloured crayon into a fine powder and mix it with a strong solution of white sugar; work it well with a palette knife, and then add to it a solution of oxgall, about equal in quantity to half the solution of sugar. With this solution and a sable or camel hair pencil, the lines of the drawing are painted on the tile, using it pretty freely. When this has been carefully and correctly done make a solution of the ordinary etching ground in ether, pour this upon the tile and let it drain off, then place the tile into a moderately heated oven, in order to expel the ether and harden the ground. Put the plate or tile into the acid bath, and when it has stood some time brush it over gently with a feather; this will remove the sugar and gall compositions and leave the lines free for the action of the acid. The acid should cover the tile to the depth of half an inch, and if a trial has previously been made we shall know exactly how long the tile must remain in the bath to allow the acid to bite deep enough. It should then be taken out of the bath and well washed with clean water to remove all the acid, and if it is found not to have bitten deep enough it may be put into the acid again. But if one part of the lines are not deep enough those parts that are can be stopped out or painted over with the ground, or with Brunswick black alone, and again put into the bath. When the work is done the ground may be washed or cleaned off the tile with turpentine, shist oil, or petroleum oil, the last two being the best. When clean it will then be ready for applying the colours, which process we shall describe in our concluding paper.

(*To be continued.*)

OUR MANUFACTURING INDUSTRIES.

No. I. MESSRS. PONTIFEX AND WOOD.

THE manufacturing industries and commercial undertakings of Great Britain occupy a position which we are safe in saying has never been equalled in either ancient or modern times.

The vast extent of the operations and the immense capital invested, in addition to the influence it has had and is still exercising upon the welfare, prosperity, and civilisation of the human family, give it a position never before enjoyed by any other nation.

For this gratifying result we are largely indebted to that indomitable energy, perseverance, and business capacity that forms so prominent a feature in the character of the natives of this "tight little island." Their ships sail on every sea, and their merchandize is sent to the remotest parts of the habitable globe. The needs of savage and civilised, bond and free, are catered for alike, and civilisation introduced and fostered.

The same energy, perseverance, and skill, have been brought to bear in the manufacturing of the articles with which her merchants supply the world. To

attain this end, however, long years of ceaseless toil, inventive skill, and business tact, have been required; and it is to the individual efforts of the men who have built up step by step these colossal manufacturing establishments, that England owes the supremacy in commerce she undoubtedly possesses, and the position she occupies to-day. War may open the way and extend the sphere of action, but it is Commerce and the arts of peace alone that consolidate and establish the happiness, the wealth, and real power of nations. Merchant adventurers brought India under our sway, and it is to them we owe the vast colonial empire which exists under the wise and beneficent rule of the British nation.

Amongst the manufacturing industries with which the *Journal of Decorative Art* is more immediately concerned, are the makers of, and dealers in, the tools and materials used by the painter and decorator, and it is on the productions of these firms that we purpose writing a series of articles, our object being to direct the attention of our readers and subscribers to those we know to be in a position to supply the best material at the lowest remunerative prices.

This kind of information we consider to be within the legitimate province of our journal, and calculated to be of great service to our subscribers, as well as beneficial to the firms in question. Our descriptions will be strictly impartial, and may be depended upon, as we shall speak from the practical standpoint of a long and varied experience.

For the first of our series we have selected the old-established and extensive firm of Pontifex and Wood, of Farringdon Works, Shoe Lane, London.

This eminent firm is not only one of the oldest in the trade, but is one of the most extensive. Its operations extend over a very wide field, embracing mechanical and engineering works of every description, in addition to the manufacturing of paints, colours, varnishes, &c. The great extent of their works in London, Surrey, and Derbyshire, the large business done, and the immense capital employed, enable Messrs. Pontifex and Wood to manufacture and keep in stock almost every article used by the painter and decorator, the japanner, the lithographer, the coach-painter, and others.

In going over the catalogue or list issued by this firm (which, by the way, is the most complete we have seen, and ought to be in the hands of every painter and decorator) we must give a word of praise to their preparations of anti-corrosive paints, which they manufacture in the form of an impalpable powder that may be mixed with oil without any grinding. It will be at once evident to practical men that this is a most convenient and economical plan, avoiding waste and enabling the workman to mix only just so much as he requires for each particular job; it is also in a convenient form for storage and carriage from place to place. Messrs. Pontifex and Wood have manufactured these oxide of iron paints for more than fifty years. They are made in nineteen different colours, and when well mixed with the best boiled linseed oil, are the very best of paints for the protection of ironwork from rust and the corrosive influence of the weather.

The list in their catalogue contains no less than thirty different preparations of blue, amongst which, in addition to all the blues required by the house painter and decorator, are Strewing Smalts, for sign writers, in three different colours, viz., blue, red and black. There are forty different preparations of browns, fifty of greens, forty-five of lakes, twenty-six of yellows, forty-seven of reds, and others in proportion.

Of specialities manufactured by this firm, we commend to the notice of our readers the Transparent Knotting as a most useful article. Patent knotting, as a rule, is too dark in colour to be used upon woodwork which has to be left unpainted, such as pitch pine, white pine and other soft woods. Many architects prefer that the natural grain of the wood of doors and architraves should be seen, and patent knotting is an admirable medium for coating such work, but the great objection to it has been its colour. Messrs. Pontifex and Wood's improved pale knotting obviates this difficulty, and shows up the grain of the wood without obscuring it.

We would direct the special attention of our readers to the celebrated Vegetable Varnish Stains manufactured solely by this firm. These stains differ from all others in the fact that they are vegetable solutions, and act as a dye to the wood, sinking in and penetrating the body of the wood. The solution being made with a special spirit varnish does not require any sizing either before or after the stain is applied. The advantages they possess are obvious. No size or other glutinous matter being used there is no danger of the varnish cracking or being affected by the weather. One coat of varnish after the stain has been applied bears out well, and, as it does not raise the grain of the wood, the workman is enabled to finish the work with a perfectly level and smooth surface, thus saving the labour and expense of rubbing down with sandpaper. These valuable preparations may be used for every purpose for which stains are employed, from the wooden roof of a church to a cricket ball, or a musical instrument.

There are several other specialities for which this firm is celebrated, an account of which will be found in their catalogue; but it will be seen from our short notice that Messrs. Pontifex and Wood supply every article used by the painter and decorator, and that of the best quality.

Trade Intelligence.

The Building Exhibition at the Agricultural Hall, Islington, opens on the 4th. There is promise of a very excellent "show," and those who can conveniently attend should make a point of doing so. We are arranging to give, in our next number, a very full report and description of all the exhibits likely to interest our readers. In our "Art Notes" will be found particulars of another display of even greater importance to our readers and subscribers.

For some time past there has been an opening for a good substitute for Vermilion, the price of the latter making it quite prohibitive for general purposes. The demand has now been met by the introduction of "vermilionette," it being a great advance on the old Derby red. Some samples received from the Sanitary Paint Company, Liverpool, are excellent in colour and density of body.

Messrs. Hayhoe, of Stowmarket, have forwarded us for trial some of their Paint Solvent. We have given it a good testing, and find it what the proprietors state it to be. It is the best stripping paste we have used.

It is an old saying that a bad workman always complains of his tools. Be that as it may, it is a certain fact that good tools help to produce good work, and are beneficial, economical, and indispensable to the good workman. This being so, we have great pleasure in directing the attention of our readers to the fact that Messrs. Crowden and Garrod, of Falcon Square, London, have received the Highest Award at the Melbourne Exhibition, for the excellent finish, great improvements in manufacture, and general superiority of their painting brushes.

Messrs. J. & H. Land, of 93, Cannon Street, London, are showing a very tasteful selection of paper hangings for this season. They offer every facility to respectable firms, and allow liberal discounts. Price Lists and Pattern Books on application.

Prices continue very much the same as when last we wrote, Oils being 26s. and 28s. per cwt., Turpentine about 36s., and White Lead remaining at 23s. genuine.

The brief foretaste we have had of Spring weather, has already had a sensible effect on the painting trade. The grub has merged into the chrysalis, and will soon be the full-blown butterfly. By the time this is in the hands of our readers, trade will have commenced in good earnest, and the words of the sacred writer, "Lo! the Winter is past," will be a message of good omen and import to many.

Answers to Correspondents.

All questions should reach the office not later than the 15th of the month, so as to ensure being answered in the succeeding number.

Country Painter.—We should say that the best course would be to give the entire ceiling a coat of paint, and thus get a uniform surface, or to line it with white lining paper, but the former course would be the better one.

Gibbs' Patent Graining Rollers.—We have made inquiries at several likely sources, but have not been able to obtain any information concerning them. Perhaps some of our readers may know the address of the maker, or of some vendor.

Crete Enamel.—We have had an inquiry respecting this enamel. We are unacquainted with it, nor can we get any information concerning it. We shall be obliged if any of our readers can furnish us with the required information.

W. Calder, Lanarkshire.—If you add sufficient white wax to the Brunswick black to stiffen it, and stencil your pattern with great care, you may succeed in stencilling a pattern on glass that will stand the acid, but it will be the safest plan to examine it carefully and touch up any defective parts with the pencil before submitting it to the acid. We have the subject of apprentices in consideration, and will treat upon the matter fully at a convenient time.

Washing "Duresco."—We have not had occasion to wash off any; for re-doing you would simply have to wash it down clean, and then give it another coat, or two coats, as you would a painted surface. It is much thinner than whiting distemper and therefore does not clagg up. We would advise you to adopt the following plan for ceilings or walls:—Clearcole with the transparent Duresco and let it stand a few days, then follow with the coloured mixture, and *stipple* it to ensure a good job. You will be highly pleased with the result.

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"OF ALL GOD'S GIFTS TO THE SIGHT OF MAN, COLOUR IS THE HOLIEST, THE MOST DIVINE, THE MOST SOLEMN."—*Ruskin.*

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.

CHAPTER VI.

Preparatory Processes.

WE may here explain that gloss colour upon gloss colour does not work well, the last coat being apt to "cess," or contract, so that in order to make firm, solid work it is necessary to manipulate the successive coats of paint that they may assimilate properly and not "cess." To attain this object it is best to alternate gloss and semi-gloss colour; first a coat of gloss, and then a coat of colour having a preponderance of turpentine in it; the successive coats of paint will work better and make a better job at the finish. In the painting of the last coat before flatting the colour should be a full gloss colour. This is absolutely necessary in order to form a key to bind the flatting, because the flatting colour being mixed with turpentine alone has in itself no binding qualities, except the small portion of oil which the lead contains, and it is desirable that this should be removed as much as possible before using, as the work will then be free from gloss. The wall or other work should be painted with gloss colour one day and flatted the day following. If this is not done the oil colour gets hard and loses its key, or tack, and in this case the consequences are that the flatting is not bound fast, will wipe off with the slightest touch, and will not wear any length of time. It is a common complaint with housekeepers that the dead or flat colours do not wear well and cannot be easily washed. The sole cause will be found to be as above stated, and, of course, can always be avoided. If the work is properly done, the flatting colour softens the face of the oil colour and the two form one homogeneous whole, the dead colour ultimately becoming almost as firm as oil colour. The fifth coat (under which number of coats no new walls can be properly finished) if it is to be flat colour will require to contain a greater portion of lead than the previous coats, as turpentine will hold in solution a much greater quantity of lead than oil will and yet work thinner. There are several points to be carefully observed in order to produce good flatted work. What we have before said as to laying on the flatting quickly when once started may be again noted. If it is a good job, it will appear of one uniform dead surface, free from shady or half glossy parts, but this result can only be attained by great care in the working. The flatting colour is best mixed ten or twelve hours before being used, as the oil contained in the lead will rise to the surface and may be poured or skimmed off, which will assist the colour to dry much more free from gloss than if the oil were not removed, and the paint may then be thinned to a working consistency with turps. Flatting should never be used thick on large surfaces, because the turpentine evaporates so quickly that it is impossible to make a good job if so used. In laying the colour on the wall it should be worked in strips, or breadths, as before described, and sufficiently quickly to keep the edges wet, so that the one will work sweetly in the other and thus avoid shady joinings. On large surfaces, such as staircase walls, &c., this is very rarely successful except the work is stippled. Stippling brushes are now made by all painters' brush makers, and are made in different sizes; those about eight inches by six are a good useful size for general purposes. Some are made with the handles crossing over the back; in others the handle is formed in one piece with the back, but the most useful brush is the reversible stippling brush. The handle is attached to the brush with a screw which turns in a brass plate fixed on the back of the brush; by loosening the screw the brush can be reversed, thus enabling the workman to avoid the uneven wearing of the bristles. The pressure in

working with a brush of this kind will naturally bear more upon one side than another, and thus the brush becomes unequal sided, which defect this simple invention effectually prevents. In stippling, the colour is laid on pretty freely in the usual manner, and spread as even as the time will allow, but it need not be so particularly done as if it were to be finished without stippling, because the stippler spreads the colour and with proper care will leave it equally deposited upon each part. The brush is held in the right hand and the work is gently dabbed or stippled with the extreme ends of the bristles, which spreads the colour evenly over the surface, leaving it with a slightly granular or roughened face, but also with a solidity and uniformity which cannot be attained by any other means.

In painting a wall in any tint of colour after the first or priming coat—which we have before said is best of a reddish tint—the wall should be brought up to the finishing point with each successive coat lighter than the one preceding. We thus form a more solid body of colour, for it is an indisputable fact that tints of colour will cover better and appear most solid if we paint each coat a few shades lighter than the previous one. But if we reverse the process and paint a dark tint upon a lighter one, there will be a want of solidity and streaky appearance about it, and it will, technically speaking, "grin"—the light colour showing through the darker one. In painting large walls the men should be so arranged one above the other that they can paint a strip of wall as before named from top to bottom; the man taking the lowest stretch should lay off first, the next man above following stroke for stroke, and thus the work may be done without showing any piecings, however high it may be. By this means a good and solid job may be done without the use of the stippler, but it will require great care and skill in the doing. Another important point is to take care that no parts are missed, for if any part, however small, is omitted covering, it will show plainly, and the side of the wall on which it occurs will be spoiled, as it is a peculiarity of flatting colour that it cannot be touched up without the same being distinctly seen. Flatting colour, if it is touched after it is set and before it is dry will appear glossy, or partly so, in every part where it has been so touched, and, therefore, if a part of a large wall is missed in flatting it necessitates the whole of the wall being done again, that is to say, that the wall will have to be painted with the gloss colour and then re-flatted; it must have the two coats, as flat colour upon flat colour never makes a good job.

(To be continued.)

"The only essential distinction between decorative and other art is the being fitted for a fixed place, and in that place related, either in subordination or in command, to the effect of other pieces of art; and all the greatest art which the world has produced is thus fitted for a place, and subordinated to a purpose."—*Ruskin.*

OWEN JONES AND HIS CONTEMPORARIES.

CHAPTER V.

"THE GRAMMAR OF ORNAMENT."

AGAIN, if our ornament is to be placed at some distance from the eye, we gain our ends by a broad simple treatment, while if near to, and subject to close inspection, we should bestow upon it an elaboration and finish which in the former case would but frustrate the end we had in view. The amount of light, the purposes for which the room is used, any ornamental constructive features, are all modifying agencies, which the decorator must take cognisance of, if he desires to be successful.

We have dwelt somewhat at length, and perhaps tediously, on this part of our subject, but have done so from a thorough conviction that it is the very essence and life of all good ornament, and that without it the greatest skill and talent may be squandered to no purpose. We will now dismiss it, and close with the words of Mr. John Bell, extracted from an essay that appeared in 1851. Mr. Bell says:—

As a general rule, and indeed a safe one to follow, the more "fitness," there is in an object, the more is its beauty recognised; and as its presence involves consistency, it will afford a peculiar satisfaction in any work of art, while the want of it will perpetually intrude itself unpleasantly. Picture the head of Homer on the shoulders of Paris, or the trunk of Hercules on the legs of Hylas. So much, indeed, should a fine statue be consistent with itself, that, supposing it broken in parts and then mixed with a variety of other fragments of sculpture, the portions should be recognisable from the mass, not by the fitting of the fractures, but by the unity of character. In the same way in styles of decoration a great charm exists in consistency of character. What can be more unpleasant than a medley of Greek, Roman, Gothic, and Byzantine in one piece of ornament. That the Greeks kept this principle of consistent fitness clearly in view, may be observed not only in their single figures, but in their largest and most detailed work. In the temple of the Parthenon all the parts—architectural, sculptural, and ornamental—were in unison; all the details were consistent and subservient to the end and aim of the whole—the honour and worship of Attica's presiding deity.

PROPOSITION IV.

"True beauty results from that repose which the mind feels when the eye, the intellect, and the affections are satisfied from the absence of any want."

Our proposition pre-supposes certain conditions, which it will be our province to examine in their bearing on the special point we have now under consideration. For instance, "the eye, the intellect, and the affections can be satisfied, and not feel any want," and yet the cause of this triune gratification may be destitute of all beauty. Here we are brought *vis-à-vis* with the questions, What is true beauty? In what does it consist? Where is it to be found? Beauty is neither a "concrete term" nor an absolute and "fixed quantity;" it belongs to no thing exclusively, nor is it to be found only in certain specified places. Each man, and each woman, has his or her own standard of

the beautiful. One man sees beauty in a woman of commanding stature and grandeur of outline, another finds *his* ideal in the diminutive; this man affects a love for a "classic" nose; that, prefers a "*retroussé*;" a third goes into raptures about a "blonde," while a fourth descants glowingly on the superior charms of a "brunette;" while to descend from so exalted a subject as woman to the more mundane matters of ornamental styles, we are met with the same fond clinging to particular styles and phases of art.

A is an enthusiast for Greek Art; B (metaphorically speaking) throws Greek Art to the dogs, and will bore you for hours on the glories of the Middle Ages; while C will admit, with contemptuous indifference, all you have to say about these or any other, but finds his ideal in the *bric-à-brac* decorations of Queen Anne; whilst, to descend still lower, we can meet with hundreds of people who are not only destitute of any knowledge or judgment on such matters, but unfortunately are strongly prepossessed in favour of what is ugly and hideous, and at utter variance with all the canons of taste and beauty that have been handed down to us from time immemorial. And a further deplorable feature of the case is that these individuals, many of them in good position in society, regard *their* opinions as the very essence and compound of all that is orthodox and correct, and any attempt to regulate or guide them into safer channels is, in many cases, met by the most violent opposition.

We are of a progressive nature—it is our glory, as it is our prerogative, to advance, so that what to-day may please and satisfy, is to-morrow found wanting—not because *it* has in any way altered its conditions, but that we have extended the range of our vision, and see with clearer sight and from a greater altitude.

We are therefore forced to the conclusion that our proposition is treating of a state of mind that is the result of culture and experience, and it is only when such is the case—when we have trained our faculties and intuitions to an accurate perception of what to accept and what to discard—that we can hope to discriminate between what is good *of* itself and *for* itself, and what is empirical.

Before passing on to Proposition V. let us ask our readers to turn a deaf ear, to a kind of appeal that is often presented to them. Is it fashionable? The answer to this question decides weak minds perhaps more than any other inducement you can lay before them, and of all the varied motives for forming a judgment there is none, we assert, more pernicious and contemptible. It has never accomplished anything but evil, either in the world of ethics or æsthetics, and the man or woman who forms his or her judgment on such a basis is an object only of our compassion and pity.

(To be continued.)

ON THE MATERIALS AND TOOLS USED BY THE HOUSE PAINTER AND DECORATOR: THEIR PROPERTIES, COMPARATIVE VALUE, AND USE IN THE TRADE.

CHAPTER IV.

On Varnishes: the Cause of their Blooming.

ALL painters and decorators, at one time or another, have had much unpleasantness and trouble with their customers in consequence of varnishing, after having been done a few weeks or months, becoming dull and losing its polish by the exudation of a sort of bluish film which spreads over the surface of the work. The customer when he observes it rushes at once to the conclusion that the painter has used bad varnish, the specification having expressly stipulated that the best carriage or copal varnish is to be used. It is seldom any use protesting that such is not the case. There it is plain to be seen, and the uninitiated will retain the impression that they have been cheated, and that an inferior varnish has been used.

Writing on varnishes in the pages of the *Building News* eleven years ago, we said: "All users of varnishes will have observed that with certain kinds of varnish, after work has been done some time with them, a film or bloom will make its appearance on the surface, somewhat like the bloom on the peach or plum, which obscures and disfigures the work it was intended to improve and preserve. Now whether the fault lies in the varnish, or in the manner and circumstances under which it is used, has been a vexed question with artists and decorators for a long time. Much stress is laid by writers on varnishes on the absolute necessity of varnishing being done upon a fine warm day in order to prevent its blooming. This advice is good as far as it goes. Varnish no doubt will dry better on such days than upon wet muggy days, but unfortunately this alone does not prevent the varnish blooming. The house painter, from the very nature and exigencies of his business, being tied to time to get his job finishsd, cannot wait for a favourable day, but must varnish his work as soon as it is ready, without regard to the weather, consequently he has to risk blooming. Varnish makers say the fault is not in the varnish but in the manner of using. Well we have had as long an experience as most men and we are bound to dissent from this view of the question, and do not hesitate to say that we are convinced that the fault *is inherent in the varnish* and not in the manner of using it or the circumstances under which it is used. The state of the weather will have some influence upon all paints and varnishes in drying; but we have used varnishes under all circumstances of weather and situation, and have invariably

found that a varnish that will bloom in wet weather will do so in dry weather. We have repeatedly seen this tried in draughty lobbies and staircases, on outside and inside work, on both wet days and dry days, and the result has always been the same. The fault is not confined to poor varnishes alone; in fact poor or rather cheap varnishes are freer from it than the more expensive ones. The result is the same if copal body, French oil, carriage, white coburg, or any of the most expensive varnishes are used—*i.e.*, what will bloom at one time will at another, whether wet or dry. We would ask varnish makers as a body why it is that one making of varnish shall be liable to bloom under all circumstances, and another batch by the same maker shall be, under all circumstances, entirely free from this defect. We are of opinion that the fault arises either from some defect in the gum used, or from inattention to some small matter in the process of manufacture, which by careful watching might be discovered and this grave defect avoided."

We wrote the above in 1870, and we see no reason after all these years to change or alter our opinion one iota, but are confirmed and justified in it by undoubted facts, as incontestably proved by the results of a long series of experiments made by Messrs. Wilkinson, Heywood, and Clark, the eminent firm of varnish makers, of the Caledonian Works, King's Cross, London. These experiments have resulted in the most complete success, and this firm now supply varnishes of all kinds which they *warrant not to bloom.*

In accomplishing this they have conferred a great boon upon the trade, which those who have suffered (and that is all who have had much practical experience) will fully appreciate, as the great importance of this improvement cannot be overrated.

Now if one firm of varnish makers can do this, we fail to see why others cannot do so too. We are quite sure the result, if successful, would be in every case amply repaid in both credit and profit.

(*To be continued.*)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND REVISED FROM THE HIGHEST AUTHORITIES, ENGLISH AND FOREIGN.

CHAPTER IV.

AFTER the battle of Bosworth Field, when the English crown was transferred from the Plantagenets to the Tudors, Henry received the hand of Edward's daughter and thus the red and white roses—the respective emblems of the houses of Lancaster and York—were united. During this reign the dragon and the greyhound were the supporters of the English Arms. Somewhere about the date of this reign and that of Henry VIII. supporters began to be generally used. Queen Elizabeth, during her reign, had the dragon as a supporter on the sinister side of the shield, and the lion on the dexter side. James I. of England and VI. of Scotland first emblazoned the supporters of the English arms, as now used, by adding the unicorn of Scotland to the lion of England. The use of supporters is said to have had its origin in the practice observed at tournaments of the esquires attendant upon the knights dressing themselves in the skins of lions, tigers, bears, and other animals, and thus standing by the side of their master's shield or escutcheon, to report and proclaim the name of any challenger, whose defiance was signified by the act of touching the shield thus guarded with the point of a lance. Hence supporters were only allowed to the highest nobility. Henry VIII. was the most sumptuous of the kings of England in the display of magnificent heraldic ensigns. At the tournament held in conjunction with Francis I. of France in the year 1520, the furniture and caparisons were of such a costly nature and so brilliant that the place where it was held acquired the name of the "Field of the Cloth of Gold!"—*Le Champ de Drap d'Or.* Henry proved himself a valiant knight at these tournaments. The formidable and princely figure which he made in armour (he, who spared no man in his anger, nor woman in his lust) may be seen in the armoury of the Tower of London. Henry was the first of our monarchs who assumed the arms and title of the "King of Ireland." The Pope had previously given him that of "Defender of the Faith." It was in this reign that the title of "Majesty" was first used by the king.

During the reigns of Edward VI., Queen Mary, and Elizabeth, very little change occurred in heraldry. Elizabeth was very sparing in bestowing either titles or wealth, and, although she had so many favourites, it is a singular fact that she did not leave one duke behind her of her own creation, nor did she leave the peerage more numerous than she found it; but she has the honour and credit of its being recorded of her that the titles she did bestow were fairly earned by the merits of those she thus ennobled.

The union of the crown of Scotland, under James I., with that of England, soon reversed Elizabeth's policy in the bestowal of titles. He at once conferred ducal honours upon his favourites, and also created a new order of baronets, which at first was to have been limited to two hundred, but now may be named by the thousand. Charles I. was still more profuse than his father in this respect. One of his most unpopular projects to raise money was to oblige all persons who possessed an income of £40 a year in land to receive knighthood, or compound for exemption. He had also a plan for conferring peerages without the privilege of hereditary legislators, but this



W.S.

DRAWING ROOM PANEL,

A.A.S

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W S. A.A.S

DINING ROOM PANEL, Specially designed for this Journal.

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fell through with the death of Strafford. Parliament, however, abrogated the honours conferred by Charles I., but they were restored by Charles II. During the reign of William and Mary there were few peers created, but there were no less than nine noblemen advanced to the rank of dukes, although none of them could claim alliance with the blood royal—a thing that had never been done before, except in the case of Villiers, Duke of Buckingham.

Queen Anne made a considerable alteration in the Scotch peerage by depriving that body of any legislative power; transferring it to sixteen only, who were to be elected from and by the whole body. Precedence was, in consequence, adjusted between the existing English and Scotch peers—the former taking place of the older creation, and of the same rank. The Scotch peers precede those of England created since the union of the two countries, and all subsequent creations were called "peers of Great Britain." This queen, like William, raised many of the peers to higher honours, and having occasion to want a majority in the House of Lords, she actually called up ten commoners to the Upper House in one day, and thus secured her object. Anne either founded or revived the Order of the Thistle, or Saint Andrew, in Scotland for Scotchmen only.

In early times the right of peerage seems to have been wholly territorial—that is, annexed to lands, honours, castles, manors, and other jurisdictions, the proprietors and possessors of which had a right to be summoned to Parliament. Even ladies, exercising these jurisdictions, retained the authority which had rested in their lords, many noble ladies being summoned to Parliament in the reign of Edward III. Whenever such territorial land was alienated the dignity passed with it: thus, in England, the bishops still sit in the House of Lords in right of succession to certain ancient baronies annexed, or supposed to be annexed, to their episcopal lands; and thus, in 2, Henry VI. the possession of the Castle of Arundel was adjudged to confer an earldom on its possessor; but afterwards, when alienations grew to be frequent, the dignity of peerage was confined to the lineage of the party ennobled, and instead of territorial, became personal.

Peers of Great Britain are now created either by writ or by patent. The creation by writ or Queen's letter is a summons to attend the House of Peers by the style and title of that barony which the Queen is about to confer upon the individual so honoured. The creation by patent is a Royal grant to a subject of any dignity and degree of peerage. The creation by writ is the most ancient way, but a man is not ennobled thereby unless he actually takes his seat in the House of Lords, and it is a usual and frequent practice to call up the eldest son of a peer to the House of Lords by writ or summons, in the name of his father's barony, because when that is done there is no danger of his children losing the right should he not take his seat.

(To be continued.)

OUR ILLUSTRATIONS.

SPECIALLY DESIGNED FOR THE "JOURNAL OF DECORATIVE ART."

OUR illustrations for this month consist of (1) double-page showing six adaptations of the hawthorn leaf and berry conventionalised, and one geometrical design for a tile; (2) a full-page design for drawing-room panel, with medallion head; (3) a full-page design for a dining-room panel.

Our double-page illustration has been expressly designed to convey a lesson on conventionalism. Owen Jones, in his "Grammar of Ornament," speaking on the conventionality of natural forms, says: "Flowers or other natural objects should not be used as ornaments, but conventional representations, founded upon them, sufficiently suggestive to convey the intended image to the mind, without destroying the unity of the object they are employed to decorate." Our object in designing this sheet, apart from the usefulness of the designs for panel decoration, is to illustrate what is meant by this conventionalising of natural forms. In looking in Chamber's encyclopædia we find "conventional" explained as "that which is in accordance, not with the absolute principles of beauty in form and colour, but with the opinions and sentiments in reference to forms and colours which chance to prevail at a particular time, in a particular country, or social class." The definition here given certainly does not express one tithe of what we understand as conventionalism as applied to decorative ornament. Let us see then if we can by means of these seven designs make it tolerably clear what the word means to us when applied to decoration. No. 1 is the natural type or fac-simile of the hawthorn leaf, stem, and flower as it grows in our hedgerows. No. 2 is an upright panel showing an extremely conventional adaptation of the leaf, stem, and berry of the hawthorn. For the purpose of our ornament it will be seen that we have arranged the leaf and berries on a spiral stem which winds round a centre one. Now we know that this arrangement is not a natural one; we see that at a glance. The berries also are arranged in threes, but in a natural state they are in clusters. Three berries or three leaves so placed form in themselves a pleasing and symmetrical outline and form. Similarly we form the leaves with three lobes instead of five as in the natural leaf. These we have drawn thus because it is simple, answers our purpose, and altogether more pleasing in form than four would be. It is a singular

fact that odd numbers are generally more pleasing in this respect than even ones. Now our ornament, while not following the natural type, does show to those acquainted with the leaf that it is based upon the hawthorn leaf, and although the berries may be, strictly speaking, somewhat more like the cherry than the hawthorn fruit, yet, taken in conjunction with the form of leaf, no mistake could be made, it is not, in fact, a representation of the hawthorn either in leaf, berry, or order of growth, and yet is sufficiently near for us to say that it is a conventional rendering of that tree, which, for the purpose of forming a pleasing ornament, we have altered and twisted into forms not seen in nature, but nevertheless pleasing and useful. It will be observed also that although not following the natural type it has a principle of growth and movement in its construction, and the eye naturally follows this growth from its start in the base to the top of the spiral stem, this again contrasting with the straight upright stem, making each more pleasing (the contrast of straight lines with curves is always so), the whole forming a strictly conventional ornament. No. 3 is another arrangement on a horizontal panel based upon a geometrical form, and in this example we see another condition of conventionalism in its symmetrical arrangement, the one half of the design being the exact counterpart of the other. This is very rarely the case in natural forms. Many kinds of ferns approach the nearest, inasmuch as the fronds when fully grown are beautifully symmetrical, but with a symmetry peculiarly their own, and not such as is displayed in our example. If we examine a frond of fern we shall find that the lobes of the fronds (if we may use the term) on the one side are not exactly opposite those on the other, but occupy a place on the one side opposite the space left between two lobes on the other side. Many other plants have the same habit, while others (notably the dwarf palms) will have as many as three and four or more leaves springing from the same point. Now to make each leaf exactly alike in form, and place them in exactly the same positions on each side of a central or other stem, may be termed symmetrical conventionalism, whether it be a natural leaf or otherwise. If we take any number of leaves from amongst the thousands borne by any tree we shall not find two of them exactly alike; they bear a general resemblance in form, sufficiently so to tell us to what tree or species they belong, but there the likeness ends, each one differs from another in some marked respect. So that if we simply use the natural leaf and double it in its exact form, placing it symmetrically, we thereby conventionalise it. No. 4 on our sheet, while still retaining the three berries and three-lobed leaves, more nearly approaches the natural type of the hawthorn, inasmuch as the ends of the lobes are more notched or serrated. Springing out of the vase is a conventional rose formed of eight large petals and eight small ones arranged round the centre disc. No. 5 is still another conventional arrangement of the hawthorn designed as a tile decoration. The leaves and berries are symmetrically placed, are equal sided, and lend themselves admirably to the square of the tile. The four leaves in the centre, when looked at for a moment, lose their leaf form in some measure, and the black background appears as a cross. In the example of panel decoration (No. 6) we have the nearest approach to its natural type. The leaves are five lobed as in the natural leaf, and the flowers are some with four and some with five petals. The arrangement of stem and leaves, while conventionalised to a certain extent, are of a strongly representative character, and cannot be mistaken for any other than the hawthorn. This example may be classed as a slightly conventionalised rendering of it, symmetrically arranged. We now come to No. 7, which example may be classed as a strictly conventionalised geometrical rendering of the simple daisy. It is stiff and formal, but not unpleasing on that account. There is no pretence of naturalism—it is in itself complete as a tile, but, as a decoration, requires to be multiplied and seen in the mass to judge accurately of its suitableness for the purpose for which it is designed when in use. It is placed here as a contrast to the semi-natural forms of the other examples. From what has been said we see that, so far as ornamental forms are concerned, conventionalism simply means the adaptation and alteration of natural forms for the purposes of decorative design, while at the same time retaining in the ornamental form sufficient of the natural form to indicate the source from which it springs.

Our second full-page illustration is a design for a panel of drawing-room door, consisting of a medallion head with birds and griffins as supporters; it will be found useful for a bottom panel, and may be treated in any suitable manner according to the purpose for which it is used.

Our third page design is for a dining-room panel. This design is treated in a semi-naturalistic manner; it simply tells its own tale. Master Reynard is slyly stealing forward to secure a meal which he seems pretty certain to get. This is a style of decoration much in vogue at the present time, apropos of which we shall have much to say at a convenient opportunity. In painting this design it is not intended that it should be done in anything like natural colours, but laid in or stencilled in a lighter tone of the colour of the panel, whatever that may be, and then outlined with a darker colour without shading; two drabs or stone colour outlined with brown or outlined in gold, or even gilt on a dark ground and outlined with black.

ON THE CURE OF DAMP WALLS, AND THE DRYING OF NEW PLASTER.

CHAPTER I.

A CORRESPONDENT has asked our advice as to the best means of treating newly-plastered walls, and preparing them quickly for painting or papering.

The query opened up such a wide and important enquiry, both from a sanitary and decorative point of view, that we have decided, in the interest of our own readers, to investigate the matter fully, and place before them the numerous methods with which we are acquainted for the attainment of the object in view.

Before dealing with the general question of damp walls, we will answer our correspondent's query as to the best means of drying newly-plastered walls quickly.

In practice we have found that it is hardly ever safe to paper or paint newly-plastered walls for several months after they have been plastered. If the brick-work is new there will of necesssity be a large amount of moisture in the mortar and bricks, and where two or three coats of plaster is added the quantity of water which must be evaporated through the surface of the plaster (there being of course no other vent) must be very large, and must of necessity take a long time. But if the plastering is done upon old and dry brick walls it will dry in a comparatively short time; the bricks and old mortar, being perfectly dry, will absorb and evaporate the water from the new plaster, and so the process of drying will be going on at all sides. New plaster may be dried quickly by the application of heat to the surface, in properly made braziers or other heating apparatus. These should be made with reflectors at the back, so that the whole of the heat may be thrown on to the wall; by so doing, and moving it about, the plaster may be dried in sections. This is a rather tedious method, but it is quite practicable and effective. We have but little faith in the virtue of surface coverings of newly-plastered walls, whether in the form of patent knotting, indiarubber, or other damp proof solutions, simply from the fact that the water is in the wall and plaster, and must find its way out. If the air of the room is made dry by heat the moisture in the wall will, by the unerring force of a natural law, be drawn into the room, and any coating put upon the surface of the plaster will be affected more or less by the moisture in its efforts to escape; water blisters will be formed, and the coating, whatever it may be composed of, will be loosened from the wall. This effect we have witnessed again and again.

(*To be continued.*)

Art Notes.

The Decorative Art Exhibition is making good progress. Mr. Gullick informs us that some of the first firms in London are taking advantage of it to exhibit specimens of their work. The building is now a long way on towards completion, and the display will be one of great interest to all our readers. We shall give a long description of it on the first opportunity.

Manchester will now soon receive the first instalment of her aspirations in the direction of a higher Art culture by the opening of the New School of Art in Cavendish Street. The many disadvantages attendant upon the old premises in Princess Street have restrained Mr. W. J. Muckley, the head master, from putting in force several schemes he has in contemplation for the development and application of Art to technical and industrial purposes.

With the new premises we may look forward to a wide extension of usefulness on the part of this institution. To no other city in the kingdom, is Art knowledge and instruction of more vital import than to Manchester, and any efforts of Mr. Muckley's should be well responded to and supplemented by the manufacturers and employers of the district. Certain are we that any outlay in the form of Art encouragement will, like the exercise of "the quality of mercy," bless both him that gives and him that takes.

One of the—if not *the*—most important Loan Exhibitions ever held in the provinces will be opened for a few months in connection with the opening of the school. A good feature in connection with this is, that workmen's tickets are being issued for evenings at a merely nominal charge. This is a move in the right direction, and an example that ought to be widely followed.

We certainly thought we had "touched the bottom" in the matter of imitations; but not so. We were, in the Building Exhibition, intent on admiring some carved work of birds and fruit, in which the plumage and leafage were admirably rendered, when our faith in the reality of all things earthly was rudely shaken by the attendant coming up, and, turning round the "carving," disclosing a hollow composition cast, the face of which was *veneered*. We felt very much like "Artemus" did on board the boat, when the guardian of the "Octoroon" had been bestowing his attentions on A.W.—we almost doubted our own reality and our own identity.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

BY THE EDITOR.

CHAPTER VI.

Oak Graining in Oil.

WE now come to a comparatively recent, but most admirable system of graining oak by means of overcombing, which, in working, takes exactly the opposite course to any of the foregoing methods, inasmuch as the figure is worked out first, and the combing or grain is done afterwards, when the first graining colour is dry. The process is carried out as follows:—

The graining colour is mixed in exactly the same manner as for other work, but thinner than for ordinary graining, and is brushed over the work sparingly, leaving it just sufficiently strong to show a clear distinction between the ground and the colour. The lights or figures are then wiped out in the ordinary

way, as before described, and softened by drawing the end of a broad hog hair fitch, or a thin mottler, across each figure with the flat side of the tool, afterwards softening it a little with a badger hair softener. In smearing or brushing across the figure thus the tool carries along with it minute parts of the colour, which form short fine lines across it, such as may be seen in the real oak. But previously to wiping out the figures streaks of light should be slightly wiped out on one side of the panel and across the stiles, and softened in imitation of the reflective or silky lights seen running across the grain in the real oak. The colour should also be partially wiped off the rails or stiles at their junction, in order to define sharply the joints. After this is done, and the lights wiped out, it is left to dry hard, and is then ready for overcombing—that is, combing or graining over the figure, hence its name, "overcombing." This will have to be done somewhat differently to the ordinary combing, as thus:—The graining colour is brushed over the panel as before, and combed solely with gutta percha combs, and these must be specially cut for the purpose—they are best about two inches wide. The first comb used must be cut with teeth about three-sixteenths of an inch wide, the next one-eighth, and the third about one-sixteenth of an inch. The broadest toothed comb is first used, and must be drawn down the panel with a wavin motion in short or long serpentine curls; either will answer our purpose. The next sized comb must then be combed straight down the panel, the straighter the better. This has the effect of breaking the wavy combing into long and short bits, similar to the pores or grain of the real wood. Both the first and second combing may be varied by holding the comb in a slanting direction, and may be made fine or coarse according to the width of the comb used. We now take a soft rag, folded as before described, and with this partially clear off the grain which runs over the figure, leaving only a sufficient quantity crossing the figure or light, exactly as it appears in the real wood. The grain is also wiped off in the same manner in parts on the plain spaces between the figures, in order to break it up and take away any appearance of formality. If this method be well and intelligently carried out a thoroughly deceptive imitation may be produced, and except this end be kept in view no really good work can result. In combing a door or other work we have before spoken of the importance of clearly defining the joints; we urge it again here, because it will often happen that the joints of the rails and stiles are not exactly level or on the same line as the mouldings. Mouldings, in some instances, are planted partly on the stile; in these cases the joint will be inside the line of the mouldings, consequently it will be more difficult to work than if it were straight in line with the outside edge of the moulding, as in ordinary doors. Grainers are too apt to disregard this, stupidly making a false joint level with the mouldings, and in ninety-nine cases out of every hundred the true joints will shew, and thus we have apparently two instead of one. The joints in graining should never be made in any other position but where they do actually occur in the wood of which the door is made.

Some years ago a very excellent and compact little machine or roller was invented by Mr. W. Jones, grainer to the trade, Manchester, for the purpose of overcombing oak. It is of very simple construction, performs its work admirably, and is altogether a useful tool. Machines for graining ordinary woods are, as a rule, complete failures, and, like patent medicines, are guaranteed to do too much, and, of course, don't do it. Mr. Jones's invention differs from all others with which we are acquainted, in the fact that it only professes to assist the grainer in such parts of his work as may be accomplished by mechanical means, and this purpose it effects in the most complete and efficient manner possible. Its object and purpose is to dispense with the process of overcombing, as we have described it above—and for all ordinary work nothing could answer the purpose better—and this is accomplished by an extremely simple arrangement, which deposits the colour upon the work in short bits, in exact imitation of the pores or grain of oak; or, in fact, of any wood having these pores as a distinct feature. This invention consists of a wooden roller about three-quarters of an inch in diameter, and of various widths, from half-an-inch to three inches. Through the centre of this cylinder an iron core is fixed, having projecting pins at each side, which fit into an iron handle formed by a half circle of thick wire bent close together to make the handle, and opened out at the other end to clip the roller and fit upon the projecting pins, the spring of the wire itself being sufficient to keep the whole in its proper form. This, however, is simply the framework. Upon the wooden roller are placed a number of circular discs, which have a hole through their centre just large enough to play loosely upon the roller. These discs are cut out of sheet zinc, and are notched, or rather, parts are cut out of the edges at irregular distances and of different lengths; these vary in the different discs. The hole in the centre of the discs being a trifle larger than the roller, allows them when applied to the surface of the work to accommodate themselves to any inequalities they may encounter. This is a very nice arrangement, well thought out, without which the tool would be comparatively useless. Another advantage consequent upon this arrangement is, that the play given to the discs allows them to turn round independently of each other, and so the notches in the edges of the discs are constantly changing their relations to each other, and thus sameness is avoided and variety secured. This

completes the roller. The method of using this tool is as follows :—

The ground work is prepared and figured as before described, and when dry is ready for the roller. The colour to be used with the roller must be thicker than the ordinary graining colour, properly megilped. A brush or feeder is required to supply the roller with colour as it revolves. This brush will require to be flat, something like a large hog hair mottler ; or a large sash tool may be flattened so as to answer the purpose. The roller is held in the right hand and the feeding brush in the left. The brush, containing the graining colour, is then placed and held firmly upon the upper side of the roller, and inclining to the back part of the same in such a manner as to ensure that every one of the notched edges of the zinc discs will touch the feeding brush as they revolve. The roller is then placed at the bottom of the panel or other work to be grained, and is pushed or made to travel upwards, and as it moves along it paints the grain distinctly on the panel ; it must be used lightly and with little pressure, only just sufficient to keep it steady. When the work is rolled the grain will require to be softened with a duster or stiff softener, care being taken to do this length-ways up and down the panel, and not across it. The grain may then be broken up and softened over the figures as in the overcombing process.

(To be continued.)

A NEW APPLICATION OF AN OLD PROCESS TO THE DECORATION OF TILES, PLAQUES, VASES, AND CERAMIC WARE GENERALLY.

CONCLUSION.

Etching.

HAVING for the convenience of description taken a tile to work upon, we will suppose that the etching is completed, and that the subject consists of one or two figures, with all the detail of dress, &c., etched in lines, and the background eaten away in one solid mass. Our tile will then appear as having white glazed figures on a dull semi-rough background. This latter, however, may have a flying bird or a tree, &c., or be quite plain. In describing the method of colouring the lines of the etching and the background there are two kinds of mixtures available, namely, quick hard drying varnish paints and the vitrified colours used in the patterns for painting upon china. The same method of applying them, however, may be used, the only difference (with the exception of their durability) being that differently prepared colours are required, and a different medium for thinning them to a working consistency. In all cases we prefer that the colours applied should be dead or without gloss. We thus get a very beautiful contrast which is always pleasing. The choice of the colours for this purpose will of course be a matter of individual taste. We, however, have found that blue is an excellent colour to put into the lines of the etching on the white glaze. This is best made (when using varnish colours) from ultramarine blue and white—the white may be white lead, zinc white, Charlton white, or any other permanent white. The blue, with a little japanner's gold size or copal varnish, must be rubbed up with a palette knife. It is then mixed with the white to the required shade. Then add as much gold size or varnish as will serve to bind the colour when thinned down to a proper consistency, taking care that it has sufficient body to be solid and opaque. Whatever varnish is used should be quick drying. If properly mixed it should dry hard enough in about an hour. The whole of the etched parts of the tile may now be painted over with this colour, using a hoghair fitch or other brush, care being taken that the lines are all well covered and none missed. Now let it stand for an hour until it gets set or dry. We must then use a piece of hard wood cut square at the ends and scrape off the superfluous colour—steel scrapers may also be used. If this is properly done, the whole of the blue will be cleaned off the face of the tile, leaving colour in all the lines. This will be easily done with a little practice. We now paint in the background any desirable shade. A dark red ground made from Indian red, and black or blue with it, makes an harmonious combination of colour; deep blue background with pink figures and ornament, with the lines of the etching filled in with the dark red or brown, is also very effective. As a matter of course there are several styles of colouring which may be adopted. We may observe that in colouring in the etching and any other part of the tile with the various colours, care should be taken that the colour is so mixed as to bind it firmly to the tile without having any gloss, which it will have if too much gold size or varnish is used. The same plan of operation may be used in applying the vitrified colours to the tile, but they will require to be subjected to great heat in the muffle or furnace. Portable muffles may be purchased from Doulton & Co., Lambeth Pottery, London, and others, with full instructions for the burning and mixing of the colours. But the varnish process, if done properly, will answer the purpose, and for many purposes to which these tiles may be applied, will last for a hundred years, because the colour not being on the surface of the tile, but on the sunk parts of it, is not subject to abrasions, or worn off in dusting or wiping.

In conclusion we shall be glad to afford our subscribers any further information on the subject, and may ourselves refer to it again on some future occasion.

THE BUILDING EXHIBITION AT THE AGRICULTURAL HALL, LONDON.

MR. JOHN BLACK may fairly be congratulated on the result of the Second Exhibition of Building Materials. It is no light task to organise an exhibition of this extent even when carried out under the auspices of a large committee, and it is doubly onerous when the labour of the entire scheme falls on one individual. As a show of building and sanitary appliances the Exhibition may be considered a success, but as a display of decorative works it falls short of that position entirely. We trust by the time the next one is held there will be a great development in this direction. Of the large exhibitors, Messrs. Wells and Co. made a brave display in mantels, stoves, kitcheners, gas fittings, and general ironmongery—conspicuous alike for the extent of the exhibit, their general excellence, and at night, for their illuminations by the electric light. Of chimney pieces there were no end—all tastes and pockets were catered for, and could be gratified; in fact, the amount of attention bestowed upon this feature of our houses of late years is somewhat remarkable. Probably no other single structural feature has been the object of such solicitude as the fire-place, both in its artistic and economical aspect, and the result is that some of the finest art work of the day is to be found about the hearths of our English homes. Messrs. Yates and Haywood had one or two beautiful specimens of art, in this field: a drawing-room chimney-piece, carved in white marble, and designed in the "Adams style," was a perfect little gem for the purity of its design and the faithfulness of its execution; a dining-room chimney piece, conceived in a free Renaissance character, was a worthy companion to the foregoing; we had the feeling that there was a little too much shine and polish of brass that rather destroyed the repose of the marble and tile work. Messrs. Steel and Garland had a very extended show of grates, chimney pieces, over-mantels, tiles, &c., &c., all of which were of a very high-class character—some tile designs for the jambs of the chimney-pieces were unsurpassed by anything in the Exhibition. Of grates, whose mission it is to save the coals and cash of the householder, there was a large show: one made by the Coalbrookdale Co., and shown by Mr. W. Addis, Leicester Square, seemed the most simple in its principle and powerful in its action of any we noticed. The coal was the much-abused anthracite; and the heat diffused was very great, the fire bright and cheerful, and the consumption of coal very small indeed. Messrs. Lascelles and Co. had a number of their well known concrete manufactures on exhibition: some chimney pieces designed by Norman Shaw, R.A., were very cheap, and of necessity (considering the designer) very artistic. A concrete bath shown by them was also good, and remarkably low in price.

In plumbing and sanitary appliances connected with baths and water-closets there were many articles of interest and utility. Messrs. Smeaton, the sanitary engineers of Moorgate Street, were the largest of any one firm of exhibitors in this special branch. In connection with this department of trade, the simplest and most perfect thing of the kind we have seen was exhibited by Messrs. Braithwaite and Co., Leeds, in the form of a patent syphon for attaching to cisterns—all that is required is simply one pull of the cord or lever as the case may be and a flush of water ensues that nothing can resist; another recommendation of the patent is the ease and facility with which it can be attached, and, as far as we could judge, it is impossible for it to get deranged or out of order. Their "Claughton's oval stench traps" are models of simplicity and effectiveness. Mr. Samuel Haskins, of Old Street, the well-known blind manufacturer, had a good display of his specialities; and Messrs. Hodgkinson and Clark, of Birmingham, in the same line, had a very striking show consisting of glass blinds or screens—both simple and elaborate, yet all in excellent taste as regards design and colour. They also showed a speciality in their "Queen Anne blind"—very light, graceful, and strong.

There were numerous other exhibits of interest and use to all concerned in house-building and decorating, if our space permitted us to notice them. In novelties of contrivance Messrs. Wilkes and Taylor, of Wednesbury, shewed a simple arrangement for winding up roller blinds, that may be described as perfect in its action and complete within itself. It is the idea of the American roller worked out on scientific principles, and is so self-contained that it appears impossible to get out of order.

There were parquetry manufactures, marble mosaic manufactures, wood-working machines, pumps, engines, special metals, and many objects of interest and profit had we time or space to describe them. We hope, however, by the time of the next exhibition, that the House Painting and Decorating Trades will be better represented, as it would have added considerable interest and instruction to the display. The only display actually pertaining to the painting trade, outside the manufacture of paints, &c., was one that had been heralded with a great flourish of trumpets as "The Grand Tableau," and the less we say of it the better. It certainly did not suffer from lack of modesty on the part of the exhibitor.

MESSRS. PONTIFEX & WOOD,

The well-known White Lead and Paint Firm, of Shoe Lane, had a very extended display, comprising pumps, brass fittings, &c., &c., and a large show of paints, colours, stains, and varnishes.

The white lead manufactured by this firm is of standard value, and is established in the market by years of trial. We were attracted by the display of beautiful colours on exhibit, some reds and chromes being very pure in tone.

The latest speciality introduced by Messrs. P. & W. is their vegetable varnish stains, a great variety of which was shown, both in small panels and on doors. The oak and mahogany stains were remarkably good in their colour. The varnishes exhibited were also beautifully clear, and seemed very good in body.

MESSRS. J. B. ORR & CO.

(The Silicate Paint Co.) had on exhibit some of their specialities in paints and enamels; two long pieces of paper painted and decorated with their "Duresco" showed the artistic capacities of this water paint. When the trade becomes aware of its value there is bound to be a much larger demand for it than there is even now. An ounce of experience is worth a pound of theory in matters of this kind, and having tried and proved it ourselves, we have no hesitation in cordially recommending it to the readers of this journal. A variety of beautiful tints, of colours, some of their enamel paints, and specimens of the well-known "Charlton White" completed the show.

MESSRS. RANDALL BROTHERS,

Of Lime Street, exhibited a very interesting case of their specialities. Messrs. Randall Brothers are alive to the demands of the age, and are meeting the cry for non-poisonous paints by the production of their sanitary paints. Some zinc white shown by them was excellent in colour, and, as far as we could judge, of good covering power. They claim to have overcome the objection that exists against zinc white, by imparting to their special white a covering power even greater than white lead itself. The enamel paints shown by this firm were also very good both in surface polish, and colour; and were exceptionally hard. A portion of their exhibits that struck us as being a very desirable addition to the painter's stock, was their French dryers, in powder, made up in pound packages, very easy of carriage and economical in use. Of the merits of this article we cannot at present speak, but purpose obtaining some and testing it for the benefit of our subscribers.

MESSRS. INGHAM, CLARK & CO.

Adopted a very novel and striking method of displaying their varnishes. A large pyramid composed of different woods—walnut, satinwood, oak, maple, &c., surmounted by a figure of Britannia, was a conspicuous object in the exhibition. The woods were varnished (two coats) with their ordinary oak varnish, and the surface was both lustrous, and of good body. The base of the trophy was surrounded by specimens of the various gums. A very interesting little pamphlet, got up in good taste, treating on the different gums, their qualities and properties, gave completness to the exhibit.

THE INDESTRUCTIBLE PAINT COMPANY

Made an excellent show of their special preparations. Conspicuous on their stand (pure as the mountain stream) was a large bottle of their colourless liquid for preserving stone. It was with some of this very liquid that the obelisk which now adorns the Thames Embankment was coated, and the operation has been pronounced by experts to be quite a success. The solution is admirably adapted for coating outside walls where exposed to much wet, and its sterling qualities were exhibited on three bricks varying in porosity and absorptive power. These bricks were coated with the solution, and side by side with them were three similar bricks rejoicing in the possession of all their native powers of suction. Water poured on the latter was quickly absorbed, while on those coated with the solution it remained undiminished and without any effect on the brick. The enamel paints manufactured by this company are distinguished for their hard and brilliant surface, and are made in any tint ready for use.

STAINS.

Mr. H. C. Stephens, of Aldersgate Street, had a good display of his wood stains. These stains have been before the public and the trade so long, and by their sterling value established themselves so securely, that comment from us almost seems superfluous. We cannot refrain, however, from noticing that very decorative effects can be gained from them, in the way of imitation inlay, parquetry work, &c.

MESSRS. WHITCOMBE & EMSON

Showed a very useful article to the decorator in their plaster slabs. These slabs, made in pieces of one yard square, can be attached with zinc nails to the joists, and afterwards be skimmed over in the ordinary way. The slabs being perfectly dry and possessing a good key, the skimming on the surface is very thin and dries in a short time, in fact, almost immediately. This, where time is an object, is of great value to the decorator, and the moderate cost admits it in almost all cases. An article of great value to the builder is their cement chimney-pieces, made at a cost much below that of stone, and at the same time giving even greater advantages than the stone ones do in being less liable to fracture from knocks or heat.

MR. W. RAMSAY

Of Farringdon Street, had a limited but choice display of his domestic stained glass work. A medallion, consisting of two heads, beautifully drawn and executed, was quite a little gem in its way, the faces being away from the ordinary type one sees in leaded work. Some window screens of a simpler character were also very good in taste.

MESSRS. JOHN HALL & SONS,

Bristol, had an extensive display of various goods—"prismodial" lights, tinted glass for lead work, flashed glass, rough and polished plate, silvered plate, and a well-assorted lot of paints and colours.

MESSRS. JEFFREY & SON,

The paper-stainers, shewed a well-selected lot of their celebrated wall papers that looked quite refreshing in their quiet and repose.

MESSRS. F. WALTON & CO.

Had a limited but choice display of their speciality. The proprietors of this manufacture have an excellent article in their hands, but it is easy to destroy its value and render it common if it is not painted very judiciously. We say this confidently because we recognise its great capacities if treated well and worthily. Varnishing it, especially in light colours, completely destroys the sharpness of outline and shadow that we get when in its native state, and every projection is a reflection of light, destructive of all quiet and repose.

"PAPYROTILE."

One of the latest additions to the resources of the architect and decorator is "Papyrotile," a new species of wall covering made of paper, in the form of tiles in sizes from three to eight inches square. These tiles are susceptible of very high artistic effects, as the exhibit bore witness to. We were further favoured by seeing some more samples at the offices of the proprietors. Any colour or combination of colours can be produced in conjunction with (or without) gold, and for the payment of a special sum, varying from ten to twenty pounds, an architect may have his own design worked out and reserved for his exclusive use.

SCAGLIOLA.

Messrs. Bellman & Joy, Wigmore Street, exhibited some excellent specimens of their well-known scagliola. They were the best we have seen for many a long day.

TILES AND GLAZED WARE.

Messrs. Wilcock & Co., "Burmantofts," Leeds, had a splendid display of their goods. The manufactures of this firm are doubly welcome, not merely on account of their intrinsic artistic merit, but of the equally valuable lesson they teach our manufacturers, that it is not necessary to go to foreign climes and distant shores to produce works (or the materials) for works of art, but that at our own doors lie abundant resources and capacities, if they will only open their eyes to see and use them. The brilliancy of the glazes, the richness of the colours employed, and the general taste displayed in the "Burmantoft," is such as to give these wares a distinct place of their own in the world of art manufactures, and we welcome it as an important accession to the material placed at the disposal of the decorative artist. It is difficult to distinguish any one thing where the excellence is so general. Some emblematic figures of the elements, earth, air, fire, water, struck us as being especially good, as were also some diaper patterns with a peacock as the *motif*. There were, too, some well modelled flowers in a bold conventional treatment. The "Burmantoft" ware bids fair to become renowned all over the world, as it certainly deserves to do.

Messrs. Doulton & Co., of Lambeth, have already secured their reputation and vindicated in a remarkable manner the possibilities that lie about us. With native clays and with native talent Messrs. Doulton have raised their manufactures to a position unique amongst modern industries, and in doing this they have not only created and fostered a love of art far and wide, but have proved to a demonstration that art has a distinct commercial value in the world, and that, allied to industry and commercial enterprise, it is the "open sesame" to wealth and position. The exhibits consisted of their "Doulton" ware, some specimens of their "faience," and some "impasto" work, in addition to a collection of their sanitary contrivances, baths, closets, tiles, stones, &c., &c.

Trade Intelligence.

WE had our attention drawn the other day to some very excellent glass work just executed for the Hurst Cross Coffee Tavern Company by Messrs. Baxendale and Co., of Miller Street, Manchester. The ground work of the three squares was the tea, cocoa, and coffee plants respectively, springing from a vase in the centre of each square, and painted in very quiet low-toned colours; the writing, which was embossed and gilt, stood out distinct and clear, and the *ensemble* was very effective.

A CORRESPONDENT writes us that the Sanitary Paint Company, of Liverpool, "did not introduce vermilionette," and that many other firms are making it. Now we never said anything about the Sanitary Paint Company introducing it or making it exclusively; we merely stated a simple fact—that we had received some samples from this firm, and that they were of good quality.

IN the matter of "reds" as a substitute for vermilion, the ordinary law of the demand creating the supply seems to be reversed, and we see the supply creating the demand. The Trade has all sorts and descriptions of reds offered to it which were quite unknown a few years ago. Many of these are of foreign importation, and the success they have met with has stimulated our own manufacturers to the production of kindred reds themselves. We have received some specimens of "Empress Red," made by Messrs. Wilkinson, Heywood, and Clark, that possess great covering power and are of a very brilliant colour.

FOR cutting down varnish previous to re-coating we have found fine emery paper very effective, quite equal to ground pumice stone and felt, and much more expeditious. A friend, who first suggested this to us, informs us that the "Fire Stone" paper is even better than the emery—cuts down cleaner and quicker. Messrs. Crowden and Garrod, of Falcon Square, are the London agents for the sale of it.

MEMBERS of the Trade who desire to see the full capacities of the Lincrusta Walton, would do well to call at the British Architect Museum, Manchester, and inspect a room that has just been completed there. Our remarks anent the varnishing of this material will apply to portions of this room, but its value as a decorative material is amply demonstrated. The Museum is well worth visiting, apart from this special feature, as the spirited proprietors have got together some very interesting articles in tiles, metal work, &c., &c. It is within one minute's walk of the Exchange, out of Cross Street.

THE last month has witnessed a very large increase in our sale, and as we ascribe this to the zeal and interest displayed by our early subscribers in drawing the attention of their friends to our publication, we take this the first opportunity of tendering all such our sincere thanks.

MELBOURNE EXHIBITION.—The firm of Sir W. A. Rose & Co., of Upper Thames Street, whose display of paints, oils, and varnishes attracted considerable attention, have been awarded a first-class medal for the purity and general superiority of their manufactures by the Commissioners.

"IT'S never safe to prophecy till you know." This was forcibly illustrated in our last issue. We had written a somewhat high-pitched paragraph about the "winter being past," and the morning after, we rose up to find snow on the ground four or five inches deep. Moral: don't prophecy.

Answers to Correspondents.

All questions should reach the office not later than the 15th of the month, so as to ensure being answered in the succeeding number.

W. & T. LOCK, BATH.—Messrs. R. N. Cattle and C. Rœlke, of 336A, Oxford Street, London, W., is the firm who import the articles you name.

W. WILLOCK, AYR.—Try Mr. James Toleman, Goswell Street, London; or Messrs. Heywood, Higginbottom, of Hyde Road, Manchester. Messrs. J. Line and Sons would probably meet you.

We have received from our esteemed correspondent Mr. Geo. Goff, of Nottingham, two designs for Dado Borders, which we shall have much pleasure in publishing at the earliest possible date.

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"During such investigation as I have been able to give to the lives of the artists whose works are in all points noblest, no fact ever looms so large upon me, no law remains so steadfast in its application, as the fact and the law that they are all great workers."

"When I hear a young man spoken of as giving promise of high genius, the first question I ask about him is always—Does he work?"—*Ruskin.*

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.

CHAPTER VII.

Preparatory Processes.



HEN old walls have to be repainted they should first be repaired, and then washed down with a weak solution of ordinary washing-soda and water, or some of Hayhoe's Solvent (diluted) will do. This cleans off all the dust, grease, smoke, &c., which invariably clings to old painted walls, and the paint is sure to dry upon it afterwards. It is a usual practice to give them a coat of size (*i.e.*, technically, clearcole) instead of washing them. This is, from every point of view, a bad practice, as it fastens all the dirt, smoke, &c., on to the wall, and makes the after coats of paint liable to crack and blister. This practice cannot be too strongly condemned. We know of specifications being sent out, from good offices too, in which clearcoling has been specified for both new and old walls, and clearcoling between successive coats of paint. We must condemn this practice as utterly indefensible in every respect. It is often done as a substitute for a coat of paint, whether to the surreptitious profit of the contractors, or in consequence of the regardlessness of the proprietor we do not pretend to say, but we do know it is not to the advantage of the work done with it. If the wall has to be finished in flat colour it should have, at the least, three coats of paint, including the flat coat—no good job can be made with two. The first coat should be mixed with three parts turps., the second gloss, and then flatted the next day. All stopping or facing-up should be done either before, or in the first coat of paint, and if there are any new patches, or plaster stopping has been used, this should be brought forward before the first coat is put on, so that all will bear out equally. Any rubbing down should be done at the same time, and the first coat should be lightly gone over with spent sandpaper, but the second or gloss coat must not be touched with sandpaper or it will not make a good job in flattening. It may be taken as a rule that new walls cannot be made a good job under five coats, and are much better with six, while walls being repainted always require three coats for good work. In the painting of woodwork it is necessary to proceed with much more care, and with greater nicety in the working, more skill and practice in its manipulation being required.

In painting new woodwork our first care should be to see it well and carefully dusted, for in even the best class of joiners' work a large amount of fine dust results from the surface being rubbed smooth with glass or sandpaper, and this penetrates the interstices and quirks of the mouldings, and if great care is not taken to clean them well out the dust will be taken up with the paint brush in working, and the work made rough. Before commencing to paint, the knots in the wood should be (technically) killed, in order to prevent the resin coming out from them or from discolouring the paint. It often happens that when the knots have been imperfectly covered they will, after a time, make their appearance as yellowish brown patches through even five or six coats of paint. There are several modes of killing the knots and preventing them again making their appearance. Red lead and strong glue size mixed together, and used hot, is an effectual cure; but this method cannot be used on good work, as it makes an ugly projection on the surface, which cannot be got rid of without filling up the surface to the same level. Patent knotting (*i.e.*, shellac dissolved in wood naphtha), as its name indicates, is made almost expressly for the obscuring of knots, but is, of course, used for many other purposes. The knot requires to receive a strong coating of this substance, but the projection thus caused is not so objectionable, being in itself smooth, and when evenly laid on does not show much above the surface of the wood. A very

effectual method is to cover the knot with a layer of gold leaf, either securing it to the wood with a thin coat of ordinary gold size, or with a little weak isinglass brushed over the knot, and the gold leaf laid on while it is wet. This is the best plan, as the projection is so small that it is impossible to discover it after it has been painted over two or three times, and it is a most certain cure. But when the knot is large, or very full of resinous turpentine, the only safe plan is to cut it out and let in a piece of wood in its place. There is not, in fact, any other radical cure for a bad knot, or, indeed, for most knots in outside woodwork that is exposed to the full blaze of the summer sun. Before the wood is painted the quirks of mouldings should be examined, to see if there are any rough places that may have been left—as sometimes will happen—from the moulding plane. If there are any they should be rubbed smooth with sandpaper, which will be much more easily done at this stage than after it has been painted. The same rules will apply, in degree, to new woodwork as to new walls, in so far as the first coat of paint should be more oily and have less white lead in it than the subsequent coats. If there is more lead in the priming than is necessary the wood absorbs the oil so quickly that the lead gathers on the surface, and in laying off gets thick and streaky and so makes rough work, which is difficult to get rid of afterwards. The quirks, edges of fillets and mouldings should be carefully looked over, so that there be no fat edges left, *i.e.*, thick ridges of paint, caused by the brush being caught on the sharp edges of the various members of the door in laying off the paint. The work should be carefully rubbed down with fine sandpaper between each coat. It is well before using the paper to rub two pieces of it together or against each other, which serves to take off the very sharp edge of the sand or glasspaper, and thus prevents its cutting into or scratching the soft paint in rubbing down. Great care also should be taken not to rub off the paint on the edges of the fillets and mouldings. This, through want of proper care, is often taken off in each coat, and when the work is finished they will be found almost without any paint upon them. All nail holes and other uneven places should be stopped with hard stopping when the first coat or priming is dry and hard. Ordinary glazier's putty will suffice for all common work. It is a good plan to use a badger hair softener to finish laying off the paint upon panels and stiles of doors, &c., as, if carefully done, it obliterates the marks of the brush much better than any other means. The stippling brush is very rarely used upon doors, as it leaves a roughness not suitable for such work. In painting a door in flat colours it is best to paint the panels first, then the stiles; but in doing the stiles they will require to be done quickly, or else the colour accumulates at the joints of the cross rails and stiles and makes a ridge, which ought to be avoided. We have found it best to commence at the bottom of the door and bring on the stiles and rails together, thus keeping all sweet and wet together and avoiding the accumulation at the joints. If the quirks are tinted a different colour to the mouldings and stiles they should be picked in before the stiles are done, in order to keep all sharp and clean.

(To be continued.)

OWEN JONES AND HIS CONTEMPORARIES.

CHAPTER VI.

"THE GRAMMAR OF ORNAMENT."

PROPOSITION V.

"Construction should be decorated. Decoration should never be purposely constructed. That which is beautiful is true; that which is true must be beautiful."

THE question raised here is of very widespread interest and great importance. It is essentially a contention for truth of workmanship, embodying, as it does, the underlying abhorrence we all feel at deceit. It says, in so many words, that nothing shall be other than it makes profession to be, and the proposition is, in fact, a tribute to the sense of truth innate in man. There is a strong tendency in human nature that impels it to seek after novelty, and it is this desire to produce something new, that oftentimes induces men to lend themselves to the production of articles, that, when made, are, to say the best you can of them, essentially stupid. This is greatly to be deplored, as the energy and skill so employed, would, if rightly directed, have been a valuable contribution to the world's knowledge.

Dr. Dresser, in his "Principles of Design," tells of a wardrobe he was admiring for its effective construction, when the manufacturer, wishful to show all its beauties, proceeded to open the door, in order that he might display the interior. To the doctor's unutterable horror, he saw door, door frame, and pilaster, all open together.

Here was an error that arose from an ignorance of the law we are now considering. It would have been just as easy to have made the pilasters fixtures, and part of the construction, as they ought to be, by this means fulfilling all the demands of truth and good ornament, as to *fasten* them on to the door, and create a falsity that was disappointing when it was detected, as all falsities are. We must therefore lay it down as an axiom, that all constructive decorations are shams, and as shams, false; and as false, not true; and as not true, not beautiful, for the primary element of all beauty is truth.

Proposition VI. tells us what constitutes beauty of form.

PROPOSITION VI.

"Beauty of form is produced by lines growing out one from another in gradual undulations; there are no excrescences; nothing could be removed and leave the design equally good or better."

It will be observed that there are two distinct qualities contained in our proposition, one asserted, the other implied. The first "Growth," the second "Grace."

The quality of growth is always an important element in ornament, and one that commends itself to the approval of our sense of beauty and fitness.

Growth is a condition of life. The growth of a plant is always beautiful, because always true to its purpose and function, and in ornament, it lends an additional charm wherever it is applied, while its neglect is often paid for by a want of coherence and connection.

This is more observable in Arabesque or Panel decorations, and does not obtain with equal force in designs based on purely geometrical forms, such as diapers, &c.

Now we have two kinds of growth, graceful and ungraceful, beautiful and ungainly; the first a natural development; the second the result of some untoward circumstance interfering with the course of nature. Who of our readers has not at some time or other been amazed at those monstrosities of nature deformed—the "Dutch" garden trees, trimmed and trained to an appalling symmetry and primness, or worse, trained to the shapes of birds or animals? Could anything be more at variance with our sense of what is right, or more destitute of real beauty? On the other hand, the wildest and rankest growth of nature, wherever we find it, is full of the most exquisite beauties that greet us on all hands.

Many ornamentists seem to overlook or wilfully ignore these facts, and affect a style that equally violates common sense, and our perception of the beautiful. As a consequence they produce what are termed "quaint" ornaments, but what really are, in many instances, ugly and meaningless.

"Grace" is, in individuals, that quality, undefinable and impalpable, which lends a charm to all they do, and in ornament, whenever and wherever it is present, its presence is felt and manifested by the beauty that pervades the whole design.

PROPOSITION VII.

"The general forms being first cared for, these should be subdivided and ornamented by general lines. The interstices may then be filled in with ornament, which may again be subdivided and enriched for closer inspection."

This proposition is simply a happy description of how to set about our work, and only to the extent that it is complied with, may we hope to produce satisfactory ornament.

Do not let us be misunderstood. We would not presume to say that satisfactory ornament cannot be produced unless worked on a set system. Possibly no small share of the ornament we admire is produced in utter ignorance of this law. And yet the results may be most satisfactory, because, unconsciously, the law will have been obeyed. Mr. Lewis F. Day says:—

"A dogma may save a man from sinning either in form or colour, but beauty of either cannot be produced by receipt."

And we heartily endorse the sentiment. But the remark has more value than appears on the surface.

It is a very great deal gained, when you can save a man from doing what he *ought not* to do. It at all events obviates the necessity of undoing, and leaves the way clear for higher and better things. Ground that is free from weeds is to be preferred to the fields that are rank with ill growth, and if it is only a negative good we hail it with pleasure.

But it is more. An architect might, with just as great a show of reason, begin to design and elaborate a single room before he had constructed his general plan, as a decorator to design part before he has settled the general form. We therefore claim for our proposition the meed it deserves. It is a natural way of going to work; it further ensures coherence and consistency, and is calculated to give breadth and repose to any design to which it is applied.

Moreover, it evinces "thought" and general arrangement, and is the very expression of "fitness."

(To be continued.)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND REVISED FROM THE HIGHEST AUTHORITIES, ENGLISH AND FOREIGN.

CHAPTER V.

THERE are some curious facts in regard to the rights of peeresses which are worth recording here. A peer has the right, in certain cases, to be tried by his peers, but no like provision was made as to peeresses until after the time of Eleanor, Duchess of Gloucester, wife of the Lord Protector, who had been accused of treason and found guilty of witchcraft in an ecclesiastical synod, at the instance of Cardinal Beaufort. This conviction gave occasion for the passing of a special enactment, 20 Henry VI., c. 9, which enacts that peeresses, either in their own right or by marriage, shall be tried before the same tribunal as the peers. If a woman, noble in her own blood, marries a commoner, she still remains noble, but if she be only noble by marriage, and, after the death of her first husband marries a commoner, she loses her nobility; it is not hers by birth, and therefore, as it

came by marriage, so it can be lost. A peer or peeress cannot be arrested in civil cases, and have also many peculiar privileges, appertaining to their rank, not possessed by commoners. A peer sitting in judgment does not give his verdict upon oath but upon his honour; but when he is examined as a witness, either in civil or criminal cases, he must be sworn like an ordinary individual. In ancient times the nobility were the judges and arbitors of many causes of dispute occurring within their jurisdiction. They held courts of honour, which were, in their day, of great utility in settling disputes, deciding points of honour, justice, and the laws of chivalry and knighthood. The Earl Marshal of England held one of these courts of honour on May 23rd, 1598, to settle a point of honour between two gentlemen, named respectively, Anthony Felver and Edmund Whithepoole, Esqs., which court is chiefly remarkable from the historical names he summoned to his assistance—Thomas, Lord Howard of Walden, John, Lord Lumley, Thomas, Lord Darcie of Chesterton, Sir William Knollys, Knight, comptroller of Her Majesty's household (Queen Elizabeth) Sir Walter Raleigh, captain of her Majesty's Guard, Sir Robert Sydney, Lord Governor of Flushing, and the Chancellor of the Order of the Garter.

It is curious to note how, even in the present day, the same names, in many instances, occur in almost exactly the same offices as their progenitors occupied hundreds of years ago—Sir William Knollys, for instance, &c. All controversies in relation to the unauthorised assumption of coats of arms were the peculiar province of the Earl Marshal's Court, and its usage in these cases is both entertaining and instructive; a memorable instance being the following: Hugh, Lord Maltby, made complaint to the Lord Marshal against Hamond Beckwith, bearing date January 18th, 1339, summoning him to produce such evidences and records of his arms "as we shall allow, grant, and set our hands to your rest and posterity for ever, and also to your appearing on the fourteenth of October, the year aforesaid." Beckwith having appeared and established his claim, received the usual certificate, which recites that "Whereof I, Earl Marshal, Peter Manly, Lord Bellaqua (Lord Chamberlain), Henry, Lord Percy, Sir Robert Boynton, and Sir William Hatton, Knights, did see and allow it as due coat-armour, to him lineally descended, and have set our hands and seals on the day and year aforesaid, in the presence of many." These courts were, however, liable to be influenced by anything but honour and justice at times, as is instanced in a case relating to the arms of England in the time of Henry VIII. The gallant Lord Surrey had incurred the displeasure of that monarch, and his ruin was decided upon. He was charged with assuming the arms of Edward the Confessor. The noble family of Howard had, ever since the year 1394, used it by the authority of the king, in right of descent. The principal witness against him was his own sister, Mary, Duchess of Richmond, the widow of his most intimate friend.

In the course of her depositions she alleges, "That she thought that he had more than seven rolls of arms, and that some that he had added were of Anjou and Lancelot du Lac; and that her father (the Duke of Norfolk) since the attainder of the Duke of Buckingham (who bore the king's arms) where the arms of her mother, daughter of the said duke, were quartered in his coat, had put a blank quarter in its place, but that her mother had reassumed them. Also that, instead of a duke's coronet, was put to his arms a cap of maintenance, purple, with powdered fur, and with a crown, to her judgment much like a close crown, and underneath with a cypher, which she took to be the king's cypher, H. R." Wriothesley, Garter King-at-Arms, was then ordered to advertise to all foreign ambassadors, that Thomas, Duke of Norfolk, and the Earl of Surrey, his son, were traitors, &c. The duke was induced, by the fear of death, to confess that he had concealed high treason by keeping secret the fact that his son, Henry Howard, Earl of Surrey, had used the arms of Edward the Confessor in his own escutcheon of arms, which said arms appertain to the king only of these realms. "Whereunto the said earl by any means or way could not make any title or claim by me or any of my ancestors; also I likewise confess that, to the peril and slander of the king's majesty and the disinheriting of his son, Prince Edward, I have, against all right and authority, borne in the first quarter of my arms the arms of England, with a difference of three labels, silver, which are the proper arms of my said prince. Whereby I have given occasion that his Highness might be disturbed in his crown and dignity, which I know to be high treason by the laws of this realm, T. Norfolk." Such was the wretched means resorted to for the gratification of implacable resentment, and which terminated in the conviction and death of that unfortunate nobleman.*

It has been a prevalent opinion that coats of arms have been solely, or nearly so, granted for military prowess, or feats in war. This, no doubt, was the original and chief motive, but there are a vast number of instances in which acts of loyalty, of rare virtue, fidelity, industry, &c., were rewarded by grants of arms and titles of nobility.

It has been the fashion to decry heraldry as samples or examples of human vanity, or of feudal slavery, While allowing these motives to have their due weight, we must, however, protest against this comprehensive condemnation, for, besides the advantage to history and its assistance to the antiquarian in ascertaining

* See Walpole's "Royal and Noble Authors."

the history and pedigree of men and families who have played a great and noble part in the building up and consolidating the power, wealth, and dignity, as well as the freedom of our nation, there will be found in its study an inexhaustible mine of interesting historical facts and incidents of actual life, such as the wildest and most imaginative writer of romance could not invent.

The arts have also been largely fostered and improved by its introduction and practice. Enamelling on metals may trace its origin in this country to the needs and tastes of our ancestors for emblazoning their coats of arms on their shields. Embroidery was much patronised and improved by it. Painted glass and the illuminations of manuscripts owe much of their practice and excellence to the art and beauty of blazonry, which also contributes to the advancement of sculpture and seal engraving. To the student of English antiquities, heraldry affords constant information and amusement. Amongst the repositories of the illustrious dead, the pomp of old days, and the proud relics of feudal magnificence, he will find much that will interest and instruct; he will investigate principles which rest upon certain proof and not upon ingenious conjecture. Topography is thus rendered interesting, for however necessary the embellishment of learned commentaries of philosophical inquirers may be to its protection, simple facts, incontrovertibly ascertained, must form the groundwork, and this can only or mainly be got from the study of heraldry.

Having thus briefly noticed many interesting facts in connection with the origin, varying conditions, and progress of the science of heraldry, we shall proceed to illustrate its grammar, its various forms and definitions, in order to give a practical summary of its rules, laws, colours, charges, bearings, &c., but while doing this we shall still continue to give any historical facts, anecdotes, or romantic episodes connected with the subjects we may think appropriate, and thus hope to make our articles still interesting as well as instructive.

(To be continued.)

OUR ILLUSTRATIONS.

WITH this number we give the first of our coloured plates, shewing decoration for Drawing Room, with Chimney Piece and Over Mantel, complete. We wish to take this opportunity of expressing our thanks to the lithographer, Mr. Kleinertz, for the care and pains he has bestowed upon it, to produce a fac-simile of our original drawing.

The drawing shews only a portion of the room, the frieze round being ornamented with emblematical figures representing Poetry, Music, the Arts, &c., the figure seen on the drawing being that of Music.

The walls are painted and diapered with a design of the Maiden hair fern, and the door decorated with a design of birds and foliage.

The room is being painted with Griffiths, Berdoe and Co.'s Sanitary Paints.

In the month of August, we purpose issuing another coloured plate, showing Billiard Room decoration, which will be a suitable complement to the one now given, and will make, when framed, a good pair. With that issue we shall also give a full description of the work which is being executed at Mor-anedd, the residence of J. Churton, Esq., J.P., Rhyl. The architect for the alterations is Mr. Owen Edwards, also of Rhyl. To remove any creases from the drawing, damp it slightly at the back with a sponge, fasten it at the corners on a drawing board, and allow it to dry.

ON THE CURE OF DAMP WALLS, AND THE DRYING OF NEW PLASTER.

CHAPTER II.

BUT supposing the solution or coating to be thoroughly effective in preventing the evaporation of the water through the surface, what will be the result? We should thus hermetically seal up the water in the wall and keep it there until it rotted the mortar in the brickwork and the plaster on the wall, and in attempting to cure the fault we create a positive evil. A gentleman of great experience has sent us the following description of a plan he has tried with success. He says: "My own habit and use in the treatment of newly-plastered walls is, after they have been three months done, to give them a good coat of the liquid Duresco. I allow this to stand for a week or two until it gets quite hard, then give them a second; and when this latter has become hard the walls will be fit to paper, paint, or distemper; or what I find better still is finishing them with the body Duresco in any tint that may be desired. This latter treatment will leave the walls solid and washable, and will present a fine surface for decoration." We have not ourselves tried this method, but can guarantee the *bona fides* of the writer.

We have made many attempts, in response to the importunities of our clients, to dry new walls quickly, but they have invariably resulted in failure. Hitherto we have not found any remedy except the application of heat or lapse of time, the latter being in every respect the safest and best plan. If the house is kept well supplied with fires, and a free circulation of dry air is produced by the opening of windows and doors, especially in sunny weather, the evaporation will go on rapidly and effectually. Five or six months should dry the walls thoroughly under the above conditions.

Anyone having a regard for their own health, or the health of those dear to them, will avoid inhabiting a new house until there cannot be the slightest doubt as to its dryness. Many fatal diseases and life-long debility have been produced by a disregard of this simple precaution. Colds are a certain consequence, and we know that colds are the fruitful source of disease and death.

We will now proceed to consider the cause and cure of damp walls, and enumerate the various causes producing this evil. Its great importance from a sanitary point of view deserves our most careful investigation as to its cause and effects. It is an old adage, but none the less true for being old, that prevention is better than cure, so before describing the various methods of curing damp walls, it may be as well that we should say a word or two as to the means of preventing damp from affecting walls.

This desirable end may be effectively attained in various ways, according to the cause from which the damp arises. A house may be afflicted with damp from a variety of causes, some being damp because they are built upon low-lying ground, others through defective drains or wells; others, again, may be subject to damp on one side only, *i.e.*, that which is exposed most to winter storms and wet. Some are damp from defective gutters and spouts, and others from accidental and easily discovered causes which a little attention will remedy. Unfortunately, a house which is carefully attended to in regard to damp is the exception, and a house in which all these conditions are disregarded is the rule. People neglect these things until disease and death supervene, and then, *perhaps*, some one may have the sense to examine and discover the reason, and, on the principle of locking the stable door when the horse has been stolen, a remedy may possibly be applied.

In dealing with a house which is damp because of its being built on low-lying land, it is a wise plan to construct warm-air flues in the walls of all the lower rooms. This, in the present improved state of the science of ventilation, is a simple matter, and should be within the compass of all architects worthy of the name. There are many noble mansions in the Lake District, the Fenland, and elsewhere, which by reason of the damp fogs and the generally moist state of the atmosphere are, for want of some such a system, not at all healthy to live in, especially during the winter months. All this might be remedied by a judicious distribution of hot air-flues throughout the house; in fact, it is the only plan by which such places can be made habitable.

It is a good plan to build such houses with cavity walls, that is, two walls having a space or cavity between them, and if hot air can be introduced between them, with due provision for its escape, the plan will be very effectual in keeping the house dry. In cases where one side of a house is exposed to the full force of storm rains, that side is very apt to be damp; for although when first built, and perhaps for some years afterwards, the wall may resist the exposure, all mortar in the joints of the brick or stone will become friable and rotten, and be beaten out by the force of the storms, and thus the wet will penetrate within the body of the wall. The preventive measures to be taken in this case would be, first, cavity walls as above described; secondly, by nailing battens of wood upon the wall, with the usual laths, upon which slates may be fastened as upon a roof. This forms a durable and most effective means of protection. The next best preventative is to plaster the weather side with good Portland cement. When this is used the joints of brickwork should be well raked out in order to give the cement a good and firm hold. If this is properly done and kept well painted, it is very effective in repelling damp.

There is another fruitful source of damp which may be avoided by proper means being taken when building, namely, that which arises from the ground and insidiously creeps up the walls, destroying the mortar, the plaster, paper, paint, &c., woodwork subject to its influence, and poisoning the air of the rooms in which it occurs. Now, this state of things may arise from defective drains, from the percolation of water from a neighbouring well or watercourse, or from the swampy wet state of the ground upon which the house is built. All this may be prevented when building by the use of either a concrete foundation, or the employment of damp-proof courses of brick or other material of the like kind.

It will be evident to the meanest comprehension that if a course of brick, slate, or other vitreous substance, which are in themselves totally impervious to wet, and through which it is impossible for wet to pass, be laid, the walls above this damp-proof course must be completely protected from damp arising from the ground, and the additional expense is so trifling that it is only from gross neglect or carelessness on the part of the architect or builder that this prevention is not oftener used.

(To be continued.)

A VISIT TO THE SANITARY PAINT CO.'S WORKS, LIVERPOOL.

AS the work illustrated on the coloured sheet issued with this number of the *Journal of Decorative Art* is being carried out with the paints of this company, we thought a description of the manufacturing processes employed would be of interest to our readers; we therefore availed ourselves of the invitation of the proprietors, and

paid a visit of inspection to the works, deriving much pleasure and instruction from what we then saw and heard.

In one of the oldest and most densely populated portions of that great seaport and centre of maritime wealth—the city of Liverpool, towering above its neighbours (as Gulliver o'ertopped the inhabitants of Lilliput), stands the "chimney-stack" of the company whose works we are about to describe. Now a chimney is not *per se* the most beautiful of architectural features, but it is essentially a part of the forward movement of the nineteenth century, and is representative of the enterprise and industry that marks out Lancashire men and has made them famous the world over. The chimney attached to these works is 325 feet high, and was erected at a cost of £7,000—the reason for this vast outlay being that all the fumes of the gases evolved in the manufacture are thus carried off without any deleterious effects to the neighbourhood; and also because by this means so great a draught is caused as to make it possible to burn slack and small coal, thus effecting a considerable saving in working expenses.

One of the members of the present firm, Messrs. Griffiths, Berdoe, and Co., was a member of the original firm, working under the name of the Silicate Paint Company; and two of the other partners were associated with it, one as manager of the manufacturing department (almost from its commencement), and the other as manager of the Liverpool branch.

We may here mention that the Sanitary Paint Company have taken the land on which their works stand for a long lease and have erected their present commodious premises, leaving themselves room for further extension, as the exigencies of their business may require.

The speciality the manufacturers assert for the Sanitary Paints is, that they are non-poisonous, and the peculiar claim to the attention of the trade that Griffiths' Patent White possesses is, that it is purer in colour, of greater density or opacity in body than white lead, and resists the action of noxious gases in a manner superior to any other known pigment. Griffiths' Patent White has now been before the public and the trade for several years, and has in that time established itself as one of the necessities of the painting trade.

On arriving at the works, we were taken to the upper storey, on to a flat roof lined with lead. On this roof are placed numerous tanks, and at one corner we espied a large heap of refuse zinc, which, to the eyes of the uninitiated, was, in its position, somewhat of a mystery. This mystery vanished, however, when mounting up some steps to look into the tanks, which are also lined with lead, we found some of this refuse zinc being gradually dissolved under the influence of sulphuric acid, which is manufactured in immense lead-lined chambers closely adjacent. The muriatic acid used in some other processes is made in a large tower close by. When the zinc is all dissolved in the acid, it is drawn off through pipes into the lower storey into other tanks, where the iron and other impurities are abstracted from it.

On the same floor are more tanks containing another valuable ingredient that goes to form Griffiths' White. This is barium sulphide, made on the premises in furnaces; the heat of which, insensibly recalls the one in the plain of Dura, which "Nebuchadnezzar the king" caused to be set up. The "barium" is brought from the furnaces in trucks, on the tram line; and hoisted by the steam crane on to the top floor, whence it is shot down through some "shoots" into tanks or pans, where a chemical action takes place and suspends it in solution. We have now two distinct bodies, both in a liquid form. The junction of these two liquids results in the formation of one solid. The "barium" acting on the zinc precipitates it, and we have the first evidence of the pigment, though still in a semi-liquid form.

From these tanks the white is now taken by means of pipes into two large cylinders. We must now step outside into the yard, and there we find a large air tank or reservoir into which air is pumped by steam power. By turning a small tap the air is taken out of this reservoir and applied to force the white pigment out of the cylinders into large presses. These presses serve to extract, to a great extent, the water out of the white, after which it is taken and laid on two long drying kilns, heated by hot air flues. From these drying floors the white is conveyed by trucks to the furnaces, where it is subjected to a red heat—the calcining process. When it has been sufficiently burnt the doors of the furnaces are opened and the hot pigment is plunged into cold water. This somewhat strange proceeding is of great importance to the white, as by the sudden contraction a greater density and body is produced in the pigment itself. From this cold bath it is now conveyed to a large pan, where it is finely levigated and strained, then forced through the pipes, by the air pressure, into a second series of presses, and from thence carried into the large drying room—capable of drying fifty tons at a time—where it is put on racks and allowed to dry. The last remaining process is to grind it between granite rollers with oil, it is then ready for use. The elaborate yet complete processes we have endeavoured to describe above are not the result of one or two years' efforts, but are the outcome of years of hard, practical experimenting, and the value of the manufacture has been recognised by many distinguished bodies, both English and foreign, during the last few years, and it has undoubtedly a great future before it.

It received the highest distinction conferred upon paints at the Paris Exhibition of 1878, and, in the same year, the Sanitary Institute of Great Britain awarded it the special gold medal as "an Exhibit of Pre-eminent Merit," at both the Sydney and Melbourne Exhibitions, also, it carried off the highest prizes. After long and exhaustive trials, the British Government has placed it at the head of the schedule of articles to be used in every arsenal, dockyard, military depot, and other Government establishments at home and abroad. It has been most favourably reported on in all the leading scientific, architectural, and art journals, and by many scientific chemists, decorators, &c., of the day.

We afterwards made a tour of the different departments—inspecting the oil boiling room, where the oil is boiled to ensure getting the pure material; the warehouse, where the colours are stored ready for packing; the varnish storeroom, the grinding room, where the granite rolling machines are at work and the petrifying liquid is made.

The "Petrifying Liquid," when applied to brick, stone, cement, or plaster, closes up all the pores, rendering the surface as hard as marble; and acts, not only as a perfect preservative, but excludes all damp and moisture. This most useful preparation is made with silica, gums, &c. By a clever chemical combination it is mixed with water and oil, and can afterwards be diluted with warm water, and is then used as a stable non-poisonous distemper of a neutral or of vivid tints, as preferred. At the Stafford Exhibition of the Sanitary Institute of Great Britain, a porous vase was shown full of water, which could not filter through, as the outside had been covered with a coating of this petrifying liquid. It is used for preservation from damp and decay at the School Board schools, and at a great number of hospitals, workhouses, and infirmaries. There are many churches to which this liquid could be advantageously applied.

The "Silicate Distemper"—also made in this department—is a similar preparation, specially adapted for internal walls. It is a water paint, and prepared in all colours, and is susceptible of the highest artistic treatment in all kinds of mural decorations.

Close by are the varnish and enamel departments. The company are exceedingly particular in selecting the gums, &c., used in these most important departments, and, by importing them direct, save all intermediate profits. The enamel paint possesses features which render it most valuable for use in hospitals, &c., as it dries with a hard glazed surface, which can be washed with soap and water and disinfectants without injury. Being absolutely non-porous and neutral towards metals, it is also the best possible preservative covering for iron, &c.

On the other side of the yard is the colour making department, where blues, reds, yellows, greens, &c., are made. The specialities in this department are a beautiful non-poisonous emerald green, made from zinc instead of lead, and a most brilliant substitute for mercurial vermilion, possessing all its richness of colour and far more covering power, with the additional advantage of costing less than half.

Having thus been the round of the works, we finished up with the laboratory, where we had an interesting experiment shewn us by the managing partner, of the action of sulphuretted hydrogen on white lead and Griffiths' white, the latter remaining perfectly insensible to the influence of the gas, while the former was turned a jet black. We may mention in conclusion, that in addition to several other extensive contracts, the proprietors have, for the second time, secured the contract for the year, of supplying the enamel paints, &c., used in Milner's safe manufactory.

ART NOTES.

Mr. Horsley, R.A., struck the right keynote in his opening address at the Manchester School of Art when he stated that it was not pictorial art that we wanted but applied art—art in our papers, prints, and stuffs; in brief, art in our manufactures. This, we take it, was the primary intention of the original promoters of the South Kensington School and its provincial auxiliaries, and had this idea been pursued with more faithfulness of purpose, no doubt much more valuable results would have accrued to the nation. Instead of this, however, in many cases our schools of art have simply degenerated into places where boys and girls are taught to make pretty drawings.

We have members of both sexes by the hundred who can make a pretty sketch from copy, with the orthodox amount of finish, who, on the basis of such productions, dub themselves artists, and exact the recognition of the title from their friends and neighbours; but often the only outcome of their labours is the spoiling of good canvas and the wasting of time that might have been used in a manner and direction to confer lasting benefit on the individual and the community. We cannot but think that under the management of the present able Head Master, and with the facilities the new premises place at his disposal, that in this respect Manchester will take her proper place in the art-producing centres of the land, and that from the School will emanate a stream of influence that shall make itself felt in the products of our looms, forges, and workshops.

The Committee have gathered together in the rooms of the new building, a most valuable collection of specimens of all descriptions of Art work, valuable not only in their intrinsic worth, but as educational agencies. We commend to the careful consideration of our readers the display of tapestry embroidery work. The beautiful harmonies of colour; the dexterous manipulation of materials; the skilful designing; the dispositions of parts to space, and the complete subserviency of each part to the general design—these qualities are specially noticeable, and indeed seem inseparable from Indian and Persian work.

Every description and branch of industrial Art is to be met with. Carvings in ivory and wood; bronzes, both European and Asiatic; enamelling on wood and metal; glass cutting and working; and specimens of modern pottery and china ware. Each article exhibited is of the best and most representative character. We can only regret that such an exhibition is not a permanent part of the Institution. It certainly ought to be, and till such is the case, we cannot hope to attain to any high standard of excellence. The exhibition remains open a few weeks longer, and should be visited by all who can possibly get to see it.

At the recent Architectural Conference Mr. J. D. Crace read a paper on "The Coloured Decoration of Public and Private Buildings," which he divided under the following heads: 1. To express or emphasise the best forms and proportions of the structure. 2. In the absence of structural expression architecturally, to compensate for that absence. 3. In some cases to correct proportions which, from whatever cause, appear unsatisfactory. 4. To explain surfaces and contours. 5. To add interest of detail or richness of effect.

Colour Blindness.—At the Society of Arts, on Monday evening, May 16th, Mr. R. Brudenell Carter, F.R.C.S., lectured upon colour blindness and its influence on various industries. He said that colour blindness affected four per cent of the whole male population of civilised countries, and certain classes in a still larger proportion. The safe working of railway traffic and steam navigation was almost entirely dependent upon the use of red and green signals, and these two colours were the very ones about which there was most confusion, and which could not be replaced by others. Of 9,200 engine-drivers 400 were colour blind. There was nothing intrinsically impossible in the supposition that incomplete colour blindness might be improved by cultivation and practice, but there was a great weight of evidence, as well as of analogy and probability, that complete colour blindness was an unalterable condition, upon which educational efforts were thrown away. If there were no nerves to respond, mere repetition of the stimulus could not create them.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

BY THE EDITOR.

CHAPTER VII.

Overgraining Oak and Imitating Pollard Oak.

THESE overcombing rollers are very compact, easy to use, never get out of repair, and, in use, there is scarcely any limit to the time they will last in wear; we have no hesitation in saying that they are the only invention which may be considered a benefit to the grainer, as by their aid he can get over the work quickly and efficiently, and thus time be saved and cost reduced. The pores or porous grain seen in oak, baywood, mahogany, teak and rosewood may be admirably imitated with these rollers. But all soft woods, which, as a rule, are grained in distemper, will require to be once varnished previous to being rolled, as the grain will be wiped off those parts on which it is not required much better than upon the distemper unvarnished.

The Overgraining and Glazing of Oak.

When the graining colour is dry we shall require to overgrain it, that is, to put upon it the shades of colour as seen in the real wood; this gives the graining a richness and variety which is in itself very pleasing. For this purpose we shall require a hoghair overgrainer, a little blue-black and Vandyke brown, and weak beer.* This colour, when mixed, should only be strong enough to be just seen upon the work and no more; if it is too strong it will look striped and vulgar. The shades in the oak sometimes run across the vein, but it is always better—and has a better effect—if the overgrain on the panels is straight, and any cross shades put upon the rails and stiles; but, as a matter of course, the run of the grain will in some measure determine this, for whenever there is a curl or a deviation from the straight in the run of the grain there will be a light and a shade. Glazing is the process of covering the whole of the work with a transparent or semi-transparent colour, in order to enrich the colour or to darken it. This may be done in oil or water colour; if done in oil bright lights may be wiped out on the edges of the figure or dapple. This effect may often be seen in nature, especially in rich coloured old oak. In any case glazing darkens and enriches all the work it is put upon. It is also very useful in matching painted work with the real—as by a judicious mixture of colour the exact shade or tone required can be got to the greatest nicety, and in treating the real wood by matching new to old. Vandyke brown, either in oil or water, is an admirable colour for glazing or staining, as, by the addition of burnt sienna, it can be warmed, or cooled, by the addition of drop black; burnt umber also may be thus used, but it is not as transparent as the Vandyke.

We have still one other method of oak graining to describe, if indeed it may be called graining. It would perhaps be more correct to call it nature printing, or transferring. The process is an adaptation of the process of transferring designs from copper plates to the biscuit of china and earthenware as practised in the potteries; but in this process, instead of printing from the engraved plate, a slab or plank of real oak is used for the purpose in the following manner: A suitable piece of board is acted upon by acid in a particular manner, so as to clear out the soft fibre in the grain or pores of the wood—this process at the same time hardens the wood; the plank, being thus prepared, is ready for the application of the printing colour; this is done by brushing it over with a proper tool, and then a scraper is passed over the board, which cleans off all the superfluous colour just as if it were a copper plate, only that in the potteries they use a broad thin pallete knife for that purpose. A particular kind of transfer paper is then laid upon the board and the whole is passed under padded rollers; when the paper is removed it has printed upon it a facsimile of the whole of the pattern of the oak board as distinct and clearly defined as if it were taken from an engraved plate, and with a sufficient body of colour in even the finest parts to print itself upon any painted surface. This paper may now be cut up into the size of the panels and stiles of any door, as required, and the grained side laid upon the work to be grained and well rubbed with a

* Messrs. R. Gorringe & Co., Islington, make a special preparation for distemper work, which avoids the danger of cracking the varnish, as beer has a great tendency to do.

rubber made of cloth; after it has stood for a little while the paper is washed away with a soft sponge and water, leaving the whole of the figure and grain printed upon the painted wood. By this process we transfer an exact counterpart of the real wood patterns to the painted surface, and if the colour of the ground and the graining colour are properly managed the work cannot be distinguished from the real wood. This process of printing from the wood was first introduced and patented in France and the United Kingdom by a French firm, and applied to wall papers, which were first sold in this country some twenty years ago, and a special patent was taken out, by a native of the potteries, for its application to painted work.

The process certainly produces the best imitation of real oak that can possibly be obtained, but it is costly, and therefore not adapted for general use, though it is unapproachable as an imitation, and may be used with advantage for special jobs.

POLLARD OAK AND ROOT OF OAK.

These varieties of oak differ materially from those we have been describing, and require an entirely different process to imitate. They are very beautiful in their markings, and may, to a great extent, be called fancy woods, very useful in contrast with the plain or ordinary oak, but not available in sufficient quantities for ordinary purposes. Pollard oak is not, in one sense, a natural growth, but is produced, in the first instance, by artificial means. Pollarding is practised upon other trees besides oaks. This is especially the case in districts far removed from coal. In these parts it has been the custom to cut off the branches of willows, poplars, alders, elms, oaks, and limes to use for firewood; the operation is repeated every third or fourth year, the consequence being that at the junction of the branches with the parent stem the grain of the wood becomes twisted, gnarled, and knotted in such a manner that when cut through it shows a rich and varied grain, full of twisted knots and reflected lights and shades, which have a very beautiful effect. It is from this practice that the name "pollard oak" is derived, as when the trees are thus denuded of their branches they are said to be pollarded or shorn of their tops—to poll, to cut off or shave the head. It is a very common practice both in England and Germany, but in England more especially with willows, which grow on the edges of running brooks and form a very picturesque feature in the landscape. Wherever there is a branch on the oak growing out from the parent stem there will be a cluster of knots and twisted grain. Root of oak proceeds from a somewhat similar cause. The thick end of the roots, where they join the trunk of the tree, form a succession of knots and rings of twisted grain, which, when they come to be cut through, are very beautiful and interesting to the student of nature, as well as the decorator, whether wood-worker or grainer. Now in looking at a piece of pollard or root of oak, it will appear to any one as being a most difficult wood to imitate. This is so, no doubt, and the young student without instruction would find it so. But we will endeavour to describe the method we have practised with complete success, so that he may commence with all the advantage of a long experience. We will first describe the distemper process for imitating pollard oak.

If the student will get a piece of the real pollard oak, and look at it, as he reads this description of how to imitate it, he will have a clearer understanding of our method than without such aid. In cutting or sawing up the butt of a pollarded oak, supposing the planks to be, say four feet long, it will be found that there will be groups of knots surrounded by the grain, interspersed with dark streaks of coloured grain, which enclose them; they are not round rings, but have a run or lead from one group of knots to another, all, however, running the lengthway of the plank and graduating one into the other, and all into the plain grain. From these groups of knots, proceed very fine figure or dapple, all running across the long curved stretches of grain. We have described the character of the wood as clearly as we possibly can, and, if compared with a specimen of the real timber, it will be found correct, but will be somewhat difficult to understand without. In imitating it, we proceed as follows: Damp down the work with a little whiting or fullers' earth and water; mix Vandyke brown with weak beer, to about the consistency of thin paste, put this on a large plate; mix also drop-black or blue-black to the same consistency on another plate; have also a little burnt sienna mixed with the beer, but thin. The tools required are, first, a large sash tool, second, a large sized hoghair mottler—an old one is best, and the more irregularly it is worn the better—two or three hoghair fitches, and a large open coarse sponge, the more open it is the better. When the work is damped down, take the sash tool and burnt sienna, and go all over the panel, using it freely; then take the sponge, dip it into the Vandyke and also partly into the black, and dab the colour pretty strong over those parts where it is intended that the masses of knots shall be; dab also all over the panels, but lightly. Now take the mottler, using the extreme ends of the bristles, and draw it round the masses of knots and down the panel so as to work the groups one into the other, and make the knots appear as part of the general grain, and not as separate and isolated masses; if this is done properly, the one mass of knots will work into another, and into the plain parts without any break. Now take a fitch, and work round the knots, giving them that peculiar graceful

serpentine curve as seen in the real wood. The mottler, in passing over the colour, leaves streaks and bits of dark colour exactly as in nature; all the gradations of shade, with fine and coarse work *accidentally* put in, which could not be put in with the pencil without the expenditure of a great amount of time and labour, and then it would not be so near the natural form of the wood. In using the mottler and fitch they should be dipped into water occasionally and rubbed upon the wash leather, which will materially facilitate the doing of the work effectively.

As we have before said, it is important that the student should have before him a specimen of the real wood, he would then see exactly what we mean. What is done in distemper will, of course, have to be done quickly on account of its drying, but it can be worked on again by wetting it all over with pure water after it has once thoroughly dried. The whiting used in damping down hardens and, with the beer, binds the colour sufficiently so to allow it to be brushed over with the water, and while it is wet it may be improved upon; some parts may be cleared, so as to show light upon the knots, and any parts which could not at first be worked, in consequence of its drying too quickly, may now be done, and the grain round the knots be finished with a pencil. The work may now be overgrained by using a hoghair overgrainer and blue black and Vandyke brown. These should not be strong in colour, and should run across the grain and in and about the knots, and if, while it is wet, it is brushed in one direction with the badger's hair softener, a dark edge will be formed on the curved lines of the overgrain such as we see in the natural wood. The work should now have one coat of varnish, and when this is dry it may be glazed either in distemper or oil. In glazing, the general colour may be made rich in appearance by using Vandyke brown and burnt sienna, to glaze with which will impart a warm tone; drop black may be used to modify them and keep the work cool. If the work is glazed in oil, bright reflective lights may be wiped out across the curve of the grain, about the masses of knots, and across the plain parts. Fine figure or dapple may also be wiped out, running across the semi-plain parts of the grain, springing in very fine lines from the knots. A very rich and beautiful effect may be thus got if properly done. In preparing the ground we have always found it best to have it a good full shade of colour made from Italian ochre, a little Venetian red, with a dash of burnt Turkey umber, full in tone, but not bright. This ground saves a lot of after glazing, and gives a richness which the light yellow grounds affected by some grainers always fail to yield. In our next number we shall describe the oil process and the graining of root of oak.

(To be continued.)

CHIMNEY PIECES, OVER MANTELS, AND STOVES.

Messrs. Barnard, Bishop, and Barnards' Productions.

Of all the improvements that have been accomplished of late years we venture to think there is none in which a greater stride has been made than in the warming of our hearths and homes. From the primitive grates and heating apparatus of our forefathers to the scientific productions and appliances of to-day is a long stride indeed. We fancy those old world folks must have been of a much hardier nature than their descendants, or perhaps they were more contented with their lot and bore the ills that flesh is heir to with more patience than we do now.

Be that as it may, however, it is quite certain that they had to be content without much that we in these degenerate days consider indispensable. We are led to make these reflections from an inspection of the latest illustrated catalogues of Messrs. Barnard, Bishop, and Barnards, of Norwich. These catalogues comprise examples of their celebrated slow combustion stoves, or stove grates. These stoves or grates are so constructed as to burn clearly and freely, and, on the accredited testimony of hundreds of well-known names in England, effect a very considerable saving in the consumption of fuel. (The proprietors compute the saving to be fifty per cent over the old style of grate.) They are handsome in appearance, simple in construction, economical, and are in every respect the best grate extant; not only this, but, as regards coal, they are not in the least particular; they will burn any sort, as well as wood and peat—in fact, anything that is consumable by fire.

In their decorative aspect all that skill and taste can accomplish is done here, no pains or expense being spared to make the frame worthy of the grate; all styles of architecture are catered for, both ornate and simple, and the over-mantel, which has of late years developed into an indispensable, is the subject of considerable artistic skill. The catalogue of tiles issued by this firm is likewise a very good one, comprising, as it does, many examples of natural and conventional treatments of birds, flowers, fruit, &c. All consumers interested in such things should write for them, and all those to whom opportunity offers should pay a visit to the firm's London Showrooms, 95, Queen Victoria Street, E.C., where there will be found a collection well worth inspection.

The arrangements for the Exhibition of Decorative Art in New Bond Street, London, were well advanced when last we were there, and by the time this is in the hands of our readers, the Exhibition will be open to the public. From what we saw it promises to be a very representative display—stained glass work, mural decorations, wood and ivory carving, and in fact every style of art work that comes under the cognomen of Decorative Art. The Exhibition will amply repay the visitor, and should be taken advantage of by all who may happen to be going up to the metropolis.

Trade Intelligence.



WE have received from Mr. J. Hill a consignment of his "Swift Sash Cutters." They are the embodiment of the idea of the bevelled lining fitch, only, of course, made strong and thick, suitable for the purposes of cutting in sashes. The men appreciate them, and get over considerably more ground with them than with an ordinary sash tool. Of course they are made primarily for "cutting," and not for broad work. They only need to be used once to be used always.

ONE of the most remarkable instances of success in modern times is that of the great Parisian house decorator, Leclaïre. Starting in 1827 with a capital of £40, he died a year or two ago leaving behind him a fortune of £50,000. But the monetary part of his success was as nothing compared with the solution he made of the conflicting claims of capital and labour. By giving his workmen a participation of the profits he created an identity of interest that has worked in a remarkable manner. Last year no less a sum than £34,000 was paid in wages by this one firm, £6,400 in bonuses, £3,200 was handed over to the Workmen's Mutual Aid Society, and, since 1842, £104,000 has been divided amongst the men as their share of the profits. The *morale* of this establishment is something unique, drunkenness being unknown. Here is an opening for some of our enterprising employers to move in the same direction.

THE varnish being sent out this season by Messrs. Wilkinson, Heywood, & Clark is of remarkable body and lustre, and is the best we have received from this well-known firm for many years.

THE bright weather now having thoroughly commenced, the Trade is in "full swing" and things wear a more cheerful aspect. Let us hope the promise of a good season may bear a full fruition.

WE have often been struck with the slip-shod manner in which some tradesmen prepare their estimates, and we have repeatedly known it to be the case that contracts have been obtained at a higher figure, owing to the specification being more definite in its drafting. We therefore purpose in our next devoting a chapter or two to the points to be observed in making out estimates and specifications, and giving a skeleton outline of one as a specimen.

Answers to Correspondents.

All questions should reach the office not later than the 15th of the month, so as to ensure being answered in the succeeding number.

RELEIVO, HUDDERSFIELD, asks Is there any method of embossing bent glass? We answer, yes. If you have got a bath of acid large enough to cover the bent glass it may then be bitten out as easily as level glass, but we see no reason why the glass cannot be first embossed and bent afterwards. Releivo then says: There is a process of imitating embossed gold lettering on glass and introducing fine lines of silver into them, and asks, Is this done by some preparation that changes the gold leaf to a silvery appearance? In answer, we are ourselves the patentees of a system of imitating gold letters with silver lines, as well as many other very beautiful effects on glass, which we purpose fully describing at an early date, but which it would be only misleading to attempt to describe in a paragraph. This is, no doubt, the process our correspondent is inquiring about. Baxendale and Co., of Miller Street Works, Manchester, are glass benders, and will do any bending at as reasonable a cost as any other firm.

MOUNT PLEASANT, RATHMINES, IRELAND.—In answer to your query, we beg to say that in the proper place we shall have an exhaustive article on stencils and stencilling, but the following instructions will serve your purpose:—First, draw your design to the exact size you want, get some stout cartridge paper, or any other tough paper, trace your designs on this, marking the places where the ties are to be left. Now use a sharp, narrow pointed knife and cut out the pattern, leaving the ties uncut to hold the pattern together. We invariably cut our stencils on glass, as we can cut them much sharper and cleaner than on any other material. Have a whetstone by you to keep the point of the knife sharp, or a sheet of fine emery paper will do. When the stencil is cut give it a coat or two of knotting thinned down with a little wood naptha, when dry and hard it will be ready for using.

VITREOUS ENAMEL FOR IRON WORK.—We know of none other than the following, which we have culled from the pages of the "English Mechanic and World of Science," a most valuable publication:—"This consists of a very fusible glass, ground up very fine, and made into a paste with certain metallic oxides, such as stannic or antimonous oxides. The glass generally used for the purpose contains a little borax and about 53 per cent of oxide of lead. Ferrous oxide imparts a green colour; antimony, a yellow; uranic oxide, a greenish-yellow; cuprous oxide, a ruby-red; gold and stannic oxide, a more brilliant ruby-red; oxide of cobalt, a blue; manganese, a black. It is spread upon the iron, put into an oven, and baked until the glass is fused."

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"During such investigation as I have been able to give to the lives of the artists whose works are in all points noblest, no fact ever looms so large upon me, no law remains so steadfast in its application, as the fact and the law that they are all great workers.

"When I hear a young man spoken of as giving promise of high genius, the first question I ask about him is always—Does he work?"—*Ruskin.*

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.

CHAPTER VIII.

PREPARATORY PROCESSES.

OLD woodwork, when about to be re-painted, requires much care in its preparation before the paint is applied, so that good work may result. Of course the amount of labour required will depend upon the state of the work and the mode in which it has to be finished. If it is in pretty good condition, rubbing down with pumice-stone and water may suffice; but if it is very old work, which has had a great number of coats of paint put upon it time after time for a long series of years, and has chipped or cracked, as such work will do, it may be necessary to remove the old paint altogether, as being the quickest, least costly, and best method to employ. Or it may be that the work is perfectly sound, but unlevel, full of little hills and hollows. In this case, after being slightly rubbed down, it may be filled up with a distemper filling or with quick varnish filling. In the first case, when the work only requires rubbing down to a smooth level surface with lump pumice-stone and water, the workman should proceed as follows:—

In selecting the piece of pumice-stone to be used for this purpose, the close-grained and harder kinds should be rejected and only that used which is of an open porous nature, the former kind being but too apt to clag or collect the paint on its surface, and thus prevent its cutting it down, while the softer kind will wear away while being used, and will thus continually offer a cutting surface to the paint, which is of course just the thing required. This work will be facilitated, and more quickly done, if a little ground or powdered pumice-stone is used with the piece of lump. The loose pumice assists the lump to bite, and also prevents the paint accumulating upon its surface, which renders it of non-effect. In rubbing down it is best, and answers the purpose intended most effectively, to move the hand in circles as much as possible, and not straight up and down. The circular movement will produce a level surface, as it touches every part with an equal pressure; but the straight up and down rubbing tends to produce an unlevel, streaky, or ropy surface. It is well to have a piece of flag-stone beside the work to rub the pumice-stone upon, in order to get it to a level surface, and this is a necessity if the paint should happen to clag or gather upon it. The flag-stone is also useful to rub small pieces of pumice-stone into various shapes, so that the workman can get into corners, angles, and the hollows and other parts of mouldings, into which the lump pumice cannot be got except it is specially shaped for the purpose. These, and, in fact, all lumps of pumice-stone, may be cut near to the shape required with a fine-toothed saw. As will be seen, this is the only way of getting at these parts of the work. Ground pumice-stone and a piece of thick felt may be used to get into the hollows, &c., after the lump pumice has been used, as a fine surface can be thus obtained; but, of course, it is not so effective in the first instance in cutting down any rough places or protuberances as the lump. While rubbing down, the pumice powder should be wiped off with a wet sponge occasionally, to see what progress has been made. When rubbed down sufficiently the whole should be well washed off and cleaned, in order to remove all loose particles of pumice and other matter resulting from the rubbing down. This should be very carefully done or else the grit will work up in painting, and thus make the work rough again. When the work is in pretty good condition after being rubbed down it may perhaps only require facing-up here and there with hard stopping preparatory to painting, but if it is in bad condition, and requires to be filled up all over its surface, it must first have a thin coat of oil paint before applying the filling up. When we say a thin coat we mean a bare coat. The oil colour must

be rubbed as bare as possible, because if there is too much paint put on the work it will not get hard enough to bear the rubbing down necessary after the filling-up colour is put upon it, but will tear up or peel. This coat of oil colour is put upon the work in order to form a key for the distemper filling-up to hold fast to, for if distemper filling is put upon old work without this coat of oil colour it will not hold fast, but come off in the working. What is here called filling-up colour may be made in several ways—or may be purchased from any large firm who supply painters' materials, such as may be found in our advertising columns—and is used for the purpose of producing upon the surface of woodwork or plastered walls an even, level, and uniform surface. Staircase walls are sometimes filled up in distemper, but rarely with a good and lasting effect. We have found this kind of filling more liable to fail upon such walls than in a warm room. In damp weather the size in the filling is affected and softened, and in dry weather it contracts, and so, between the two, sad havoc is made with the paint and varnish which covers it. Distemper filling may be made with the best washed whiting and glue or parchment size. The whiting is broken up in water to the consistency of a thick paste; sufficient size is then added just to bind the whiting, so that it will rub down with sandpaper and not crumble in the rubbing. The quantity or proportion of size to whiting must be determined by the workman himself, the best and safest plan being to thoroughly test it before using it on the work. Mix the filling, try it on a portion of the work, let it be thoroughly dry, then rub down with sandpaper on a square block of cork or wood; if it rubs down easily and without crumbling away, and leaves a smooth surface, then the stuff is all right and the work may be proceeded with. If, on the other hand, there be too much size in it, it will be too hard to rub down, the sandpaper will not lay hold, but form a semi-glossy surface. In this case more water and whiting must be added. If there be too little size in the filling it will crumble away under the sandpaper, and more size must therefore be added to it.

In rubbing down, the sandpaper must be placed over a square, flat piece of cork—which may be obtained in any shape from the corkcutters—or a flat piece of wood; but cork is best, as it will, to some extent, accommodate itself to its work. Placed thus, the sandpaper will cut down all the projecting parts to the level of the surrounding surface, leaving the hollow parts filled with the distemper filling, thus producing a level, uniform surface; but great care must be exercised in the rubbing so as not to press too heavily, or the paper will scratch and break up the filling; gentle rubbing will alone effect the end in view. When the work is as level as it can be got with the first coat of filling, and it is found not to be sufficiently filled up, another bare coat of oil paint must be put upon it, and when this is dry a second coat of the filling may be applied, and again rubbed down, as before, until a level surface is produced. The sandpaper used must be of varying degrees of fineness, the finest being used at the finish. Great care is required in this respect, as, if the work gets scratched there is no remedy but refilling.

It must be observed here, with regard to distemper filling, that the less body of it there is left on the work after rubbing down the more likely it is to stand without cracking, and, as a rule, it should be rubbed down until the last coat of paint shews on the prominent parts. It will thus only leave the body of filling in the hollows and uneven places, where of course it is required.

Quick, or varnish filling-up colour, is, as its name imports, a very different substance to the distemper filling and requires different methods of manipulation.

There are various ways of making it and numerous mediums may be used. Many of the large firms who deal in painters' materials supply several kinds of filling-up colour in powder. Spruce ochre has been much used by coach painters, and there are black, blue, and red filling-up mixtures. We ourselves have used, with success, dry white lead ground in turpentine and the ordinary white lead in oil, in equal quantities, with sufficient japanners' gold size or quick drying varnish to bind and harden it, so that it will rub down when hard. It of course takes some time to harden, and, in fact, ought to stand some weeks before being rubbed down. When so treated we have no doubt about its being the best filling that can be used, in every respect, for it rubs down well to a smooth hard surface, and the oil contained in the lead has a tendency to prevent the work cracking afterwards, this liability to crack being the great danger, and is, in fact, the failing of most of the compositions for filling up painted work. It frequently happens that after immense labour has been bestowed upon the work in its preparation, and after it has been expensively painted and ornamented, it will, in course of time, crack all over its surface, until it becomes one mass or network of cracks, spoiling and ruining the work. We have seen numerous jobs, executed by some of the first firms in the kingdom, which have turned out badly in this respect, and in the manner described, and this has arisen solely from the fact of the filling having been too quickly followed up one coat upon another, or else from the colour having been improperly mixed.

(To be continued.)

The church of St. Paul, New England, Peterborough, has recently been decorated by Mr. Henry Beech of that city, under the superintendence of H. M. Townsend, Esq. The work appears to have been executed in a most satisfactory and artistic manner.

OWEN JONES AND HIS CONTEMPORARIES.

CHAPTER VII.

"THE GRAMMAR OF ORNAMENT."

PROPOSITION VIII.

"All ornament should be based on geometrical construction."

THIS is a proposition that has at various times been called into question, and not unfrequently in an unnecessary manner.

We may divide ornamental forms into two broad classes.

1st. The purely geometrical, that can be circumscribed by compass and rule, which includes in its domain all repeating patterns, diapers, &c., &c.

2nd. Those designs based on the method we term "Free hand," and represented by such ornaments as the Greek honeysuckle, the arabesque of the Italian and Renaissance period, and the wonderful variety of forms introduced to us by the best period of the middle ages.

Now although in a strict literal sense such designs are not geometrical, in many cases, if we use the term broadly, we shall find our proposition is not far from the truth.

The Greek honeysuckle, for instance, is, in most of its forms, so subtle that no compassing will produce it, from its being the result of the skilled hand and trained eye (acting in unison) of the Greek artist. But in its symmetry of form, and its perfect radiation, we have a most important element of geometry.

Again, in most of the arabesque designs we find this law everywhere manifesting itself. In the central stem, in the two sides—being replica of each other, if not in actual detail, in general outline, and in the equal distribution of forms, is the truth of our proposition sustained.

PROPOSITION IX.

"As in every perfect work of architecture a true proportion will be found to reign between all the members which compose it, so throughout the Decorative Arts every assemblage of forms should be arranged on certain definite proportions, the whole and each particular member should be a multiple of some simple unit.

"Those proportions will be most beautiful which it will be most difficult for the eye to detect. Thus the proportions of a double square, or 4 to 8, will be less beautiful than the more subtle ratio of 5 to 8, 3 to 6 than 3 to 7, 3 to 9 than 3 to 8, 3 to 4 than 3 to 5."

Thus far we have pursued the even tenour of our way in complete consonance with the author whose propositions we are considering. We confess now to an inability to follow him in his analyses, and in their relative quantities. We feel, indeed, that proportion of part to part, and of parts to the whole, is a very essential quality in all successful ornament, and that without it we cannot hope to attain to either success or pleasure in design, and yet, notwithstanding, we should hesitate to put "proportion" into figures.

In dealing with the columns of a structure, or the moulding of same, or the relative height of an arch to its breadth, we are dealing with known quantities, and the architect has it at his own disposal to create or modify them at his discretion; but, unfortunately, in nine cases out of ten, the decorator has to deal with "unknown" quantities fixed for him, and, in many instances, like the laws of the Medes and Persians, unalterable. One time it is a panel 42in. by 4in., or it may be 48in. by 14in. or 15in., or possibly a square, and the same diversity is experienced in other situations and surfaces. It therefore becomes, not a matter of absolute rule, but more a field on which the artist has to bestow his judgment in dealing with the material at his command.

We would define "proportion" in ornament as that quality, which, relegating to each individual member of a given whole its proper size and place, produces a complete harmony in the entire form. We are not disposed to assert that the proportions given will not produce a pleasing relation between part and part. But, in view of the fact that the decorator has to deal with spaces and positions over which he has no control whatever, we prefer, to the laying down of a fixed law, that the relation of ornament to ornament be left to the discretion of the decorator (guided by his experience), though we cannot too strongly insist on the importance that attaches to it. Its presence contributes largely to make ornament beautiful, and indicates the artist mind, while its absence militates against all design, however ingenious or beautiful in other respects.

PROPOSITION X.

"Harmony of form consists in the proper balancing and control of the straight, the inclined, and the curved."

We will take the cube and the sphere as representing the "ultimate quantity" into which form can be resolved. In their solid shape they contain the germ of all constructive forms; in their flat surfaces they reveal the source of all ornamental shapes.

The accompanying three diagrams*, taken from the "Grammar of Ornament," will show the meaning of our proposition. No. 1 is the simplest combination of lines we can produce, and is the first step towards harmony—the base of the structure. No. 2 is the "harmonising" element that connects the whole. No. 3 is the "melody" that gives beauty and completeness to the entire edifice.

Here we have the simplest possible combination of the three forms, and that our proposition is not mere words can be ascertained by looking fixedly at No. 3, and then transferring your gaze to No. 1, the difference will be felt immediately. The pleasure of the combination is enhanced or decreased in proportion to the subtlety of the curves and lines employed; the

* These illustrations will be given in our next issue.

*

more subtle the combination the greater the beauty and pleasure derived therefrom.

Propositions eleven and twelve are inseparable the one from the other, we will therefore consider them together.

PROPOSITION XI.

"In surface decoration, all lines should flow out of a parent stem; every ornament, however distant, should be traced to its branch and root."

PROPOSITION XII.

"All junctions of curved lines with curved, or of straight lines with straight, should be tangential."

The writer to whom we have already referred in the course of these articles, speaking on these two propositions, says:—

"That the junction of curved lines with curved or straight should be tangential arouses within us something like disgust at the effeminate and flowing lines of Oriental Art. We begin to find something sickly in such soft sensuous undulations of form; grace palls upon us, and the rudest northern workmanship seems much more to be desired for its simple strength. Whatever may be said to the contrary, Nature knows far too well the value of a sturdy straight line to lend itself to so feeble a fallacy."

Now without any intention of "pitting" ourselves against the authority of the writer quoted, we think this diatribe against what is admittedly an element of beauty, and what, too, is conspicuously apparent in the work of the gentleman in question, is somewhat beside the mark. Whatever the value of a "sturdy" straight line in nature or art, it is only a relative one. Straight lines are beautiful *only* in conjunction with other forms, and in the same manner both oblique and curved, receive additional value from their combination with each other and the straight; while as to the "tangential junction of lines," we will first ascertain the meaning of the word, and then examine a few plant forms, and see how far our proposition is in accord or at variance with Dame Nature's teaching.

Without going into a mathematical disquisition, we may take the ordinary meaning of the word tangential for our purpose here. A "tangential" line then is "one, whether straight or curved, that strikes another line, either straight or curved, and does not cut through it." In the many varieties of common ferns, familiar to every lover of nature, we see the principle carried out to the fullest extent, and with the result of a perfect grace and beauty that "does *not* pall upon us," but wins our admiration the more we study it. And if we take the trouble to look, we shall note further that in these examples there is the most perfect "radiation" from the parent stem that serves only to enhance its beauty. A peacock's feather (of the "utter" school), the beauty of which is admitted on all hands, is simply an illustration of our proposition. The vanes of the feather, each in their junction with the shaft, are tangential, and in their radiation are perfect.

(To be continued.)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND REVISED FROM THE HIGHEST AUTHORITIES, ENGLISH AND FOREIGN.

CHAPTER VI.



E now come to the practical definition of what we may aptly call the grammar of the science of heraldry. As in language, this grammar must be learnt and thoroughly understood before the student can possibly have that true perception and knowledge of all its signs, symbols, and tokens. These remarks will, of course, only apply to those individuals who intend making a study of heraldry; but we hope to be able to place the matter in such a light that decorators and others who have occasionally to use heraldic forms may cull from our pages all that they may require, without making a special study of the subject.

Armorial bearings having been assumed by kings, by states, countries, cities, and corporations, and specially appropriated to themselves; also by all degrees of people under various circumstances and conditions; so it came about that *Arms* (which acquired this name from having first been used by military men) are distinguished and arranged under Arms of Dominion, Arms of Pretension, of Concession, of Community, of Patronage, of Family, of Alliance, and of Succession.

Arms of Dominion or Sovereignty are those which emperors, kings, and sovereign states usually bear, as being annexed to the territories, kingdoms, and provinces they possess.

Arms of Pretension are those of such kingdoms, provinces, or territories to which a prince or lord has some claim, and which he adds to his own arms proper, notwithstanding that the said kingdoms or territories are in actual possession of some foreign prince or lord.

Arms of Concession or Augmentation of Honour, are either entire arms, or the addition of some figures, given by princes as a reward for extraordinary services.

Arms of Community are those of bishoprics, cities, universities, academies, societies, companies, and all bodies corporate.

Arms of Patronage, such as governors of provinces, lords of manors, patrons of benefices, &c., are added to their family arms, as a token of their superiority, rights, and jurisdiction.

Arms of Family, or Paternal Arms, are those that belong to one particular family, which distinguish it from any other family, and which no person is suffered to assume without permission.

Arms of Alliance are those which families or private persons take up and join to their own, to denote the alliances they have contracted by marriage.

Arms of Succession are such as are taken up by persons who inherit certain estates, manors, &c., &c., either by will, entail, or donation, and which they generally impale or quarter with their own arms.

As a necessary corollary to the description of the various charges which are the component parts of every shield or coat of arms, we shall here commence a Glossary of heraldic terms, arranged alphabetically, but as it would occupy too much of our space if printed in our ordinary type we are compelled to present it to our readers in a small type. We shall, however, still continue our account of and instructions in heraldry in the usual type, illustrated with engraved examples of heraldic charges, &c.

The shield or escutcheon upon which all the charges are blazoned, is, of course, the primary question for our consideration, and is the most ancient of the signs of heraldry. Its origin was coeval with the invention of the first missile, its obvious use being to cover and protect the body from hostile weapons. It was in consequence held in the highest estimation amongst all the nations of antiquity, as, by the rules of warfare, the soldier incurred the penalty of death who surrendered his shield; so the capture of a shield from an enemy was considered one of the most meritorious actions. Hence the shield was ensigned and painted with representations of the most brilliant or heroic achievements of those who bore them. In the book of Genesis (xv. 1) it is written, as an incitement to virtuous deeds, "Fear not, I am thy shield and exceeding great reward." The shield is alluded to in various parts of holy writ, as well as in most of the celebrated classic historians and poets. As a trophy, Æneas suspended the buckler of Abas on the gates of the temple of Apollo. Pliny says "That the shields used at the siege of Troy were adorned with imagery," and the venerable custom of adorning the fronts of the mansions of the dead with appropriate shields has reached our own times from the remote ages of antiquity. Among the Goths and other Northern tribes their kings and chiefs were raised to dignity and supreme command by being elevated in the midst of the people upon the shield. And whilst the shield was made an emblem of independence to the free, the loss of it became a mark of degradation to the slave. Hence, in our forest laws, the killing of a royal stag incurred the loss of the shield, which in the reign of King Canute reduced a freeman to irretrievable bondage.

Among the Greeks and Romans the name of the shield was as various as its shape. The Latin word *scutum* (from which the Italian, *scudo;* the French, *écu*, or *escu* as formerly spelt, and *escusson;* the English escutcheon, are derived) is applied by Livy, the historian, to the gold and silver bucklers of the ostentatious Samnites, and he gives us a minute description of their form: the shape of the summit by which the breast and shoulders are protected, was large and even; the bottom was wedge-shaped, to render its motion more easy.

In our next we shall give some examples of the various shapes of the shield.

ALPHABET OF HERALDIC TERMS.

ABATEMENT, a device added to coats of arms to denote some stain in the character of the bearers, whereby the dignity of coat armour was rendered of less esteem.

ACHIEVEMENT, the coat of arms of a person or family, with all the exterior ornaments of the shield, helmet, mantlings, motto, &c., together with the quarterings they may have acquired by alliances or other means. Funeral achievements are termed *hatchments*.

ADDORSED, signifies borne or set back.

ADUMBRATION, the shadow only of any figure, outlined and painted of a colour darker than the field.

AFFRONTE, set with the face looking frontwise.

ALLERION, an imaginary bird, made to resemble a mutilated eagle, and said to be used in French blazonry to denote vanquished imperialists.

AMETHYST, a term used instead of *purpure* or purple, in blazoning the arms of the English nobility.

ANNULET, a circle, sometimes borne as a charge in coats of arms, and also added to them as a difference for the fifth son.

APAUMÉE, a human hand opened and upright.

ARGENT, the common French word for silver, of which metal all white fields or charges are supposed to consist. Latin, *argentum*.

ARMED, a word used to express or describe the horns, hoofs, beak, or talons, of any beast or bird of prey, when borne of a different tincture from their bodies.

ARMORIST, a person skilled in the knowledge of coats of arms.

ATTIRED, is said of stags or deer when of a different tincture from their bodies or heads.

AUGMENTATION denotes a particular mark of honour, granted in addition by the Sovereign, either quartered with the family arms or borne on an escutcheon, chief, canton, &c., &c.

AZURE is used to express *blue*. In heraldic engravings this colour is denoted by horizontal lines drawn from the dexter to the sinister side of the shield.

BADGE, a sign or mark by which the bearer is to be distinguished, as the Cross for the old Order of Knights Templars, used by all who joined the crusade against the Infidels. The bear and ragged staff being the badge of the Earls of Warwick.

BANDED, a head or any figure tied round with a band of a different tincture.

BANNER, a flag, standard, or ensign, carried at the end of a lance or pole, and generally made square. There are some families in Europe who still bear their coat of arms in an escutcheon or shield of this form, as that, for example, of the de Coucys, originally of Picardy.

BANNERET, a very ancient title of honour, said to derive its institution from the Romans, towards the end of the Emperor Gratian's reign. Their shield was square, and they bore their arms in a banner of the same form.

BAR, a diminutive of the fess.

BARBED is used to denote the green prickly leaves which are represented on the outside of the full-blown rose, and the pheon of an arrow.

(To be continued.)

We have received Part I. of "Motifs for Panel and other Decorations," by Mr. John Ward, of Birmingham. The title accurately describes the aim of the artist, and the work, judging from the part already published, cannot but be exceedingly useful to all decorators. Mr. Ward is evidently a careful student of nature, both animate and inanimate. The work is published at 5s. per part, and is complete in four parts.

OUR ILLUSTRATIONS.

IN addition to the admirable portrait of Mr. John Gregory Crace given with this month's journal, we publish two original designs for panel decoration. These designs are based upon the Tudor or Elizabethan style, which was a sort of offshoot of the Renaissance, strap ornament being one of its distinguishing features, which being in itself stiff or formal, contrasts admirably with the free and flowing ornament used as a filling, the freedom of the one adding beauty to the other by the force of contrast. The shading lines of the background indicate different tones of colour. No. 1 has for its centre a head of Homer; No. 2 having for its centre a shield bearing on a gold ground a fret coloured azure or blue. The ornament of both panels will lend themselves to a varied treatment, and would look well worked in different coloured stains on deal or pitch pine, or as an inlay of real woods. It will be obvious that in painting these designs many styles of colouring may be adopted in accordance with any scheme of colour with which the room is done in which they may be used, and the centres may be varied to meet the exigencies of the case.

ON THE CURE OF DAMP WALLS, AND THE DRYING OF NEW PLASTER.

CHAPTER III.

HITHERTO we have been treating of preventive measures when building, but by far the most important part of our subject is how to deal with the evil of damp walls as it exists in thousands of houses, producing, as it does, poisonous exhalations, musty, fusty smells, and mould fungus, destructive alike to everything it comes in contact with. In dealing with this question we will first take the case of damp walls proceeding from outside saturation. When it is clearly understood from whence the wet comes—whether from an unavoidable cause such as the beating of rains or from leakage of spouts or gutters, the plumber or slater should be called in to examine the roof, spouts, gutters, &c., and repair them; and, as a matter of course, when the cause is remedied the effect will cease, and the walls will soon get dry again. But when it is a constantly recurring cause, as in rain, then the cure can be only effected by preventing the rain or wet from penetrating the wall. Now, in addition to the preventive measures we have before named, there are numerous solutions, enamel paints, indestructible paints, silicate paints and solutions, liquid dryers for damp walls, &c., *ad libitum*. Of these we shall give a fair and impartial opinion, speaking from our own actual knowledge and from that of others who have given them the fullest trial and test. In applying any or all of these mixtures it is in every case the best plan to thoroughly dry the wall before using them. Of course this is not always possible, but where it can be done it gives a much better chance for the cure. There is a French invention, patented in that country and in Great Britain, which, from the numerous and influential names attached to its circular of French and English architects, &c., is, we think, deserving a record here. Its purpose is to expel the wet or damp from both new and old walls, so that in the case of new walls they may be painted and papered at once, and old walls prepared for the application of damp-repelling substances.

This plan was successfully used at the French Exhibition buildings, and at hundreds of houses and public buildings both in England and France; and is now being used to dry the new walls at the Euston Station Hotel. Messrs. A. Dreyfus & Co., 39, Monkwell Street, London, E.C., are the agents. The apparatus for applying the heat to damp walls, basements, &c., may be briefly described as follows. On a truck made so as to be easily and freely moved from place to place, is placed (1) an ashpan, (2) a hearth, with rectangular iron fender, about 27½in. long by 15¼in. wide, and 15in. high. The said hearth is filled with coke, and furnished with an iron plate which serves as a reflector; (3) ten tubes of iron plate, of about 40 to 50 inches long, capable of being lengthened at will, said pipes being placed vertically in the fire in such a way that the lower extremities, widened in the shape of a funnel, cover the fire hearth almost entirely. These tubes are held by iron props fixed to the fender of the hearth, and can be bent in any direction that may be required by a screw. The cold damp air of the room, or basement, passing across the fire becomes superheated, and is projected against the wall in a very hot state, thus effectually expelling the wet.

This machine we have no doubt is well calculated to effect the purpose in view. Whether one of a simpler construction would answer as well is, of course, an open question, but this one has been put to many crucial tests, and has succeeded in drying very rapidly new buildings intended to be immediately occupied, and also in drying and making healthy, old houses and public buildings, in which the wet drawn from the damp ground manifested itself, by covering the walls with saltpetre in the form of a white efflorescence. The plan the patentee adopts with old walls, is, in the first place, to take off from the walls all the plaster, then rake out the mortar from the joints of the brick or stone work to the depth of about half the thickness of the walls, which, of course, must be carefully done in order not to shake them. The walls are then wetted



W. Salmon & Co. A. A. Silverlock Delt.

with water, and afterwards dried. This is done several times in order to dissolve and extract or expel the saltpetre existing in the material of the walls; they are finally cleansed with rough fibre brushes. They are again heated and covered with a boiling liquid hydrofuge, which is rapidly absorbed into the substance of the wall. This operation is repeated until the quantity absorbed is equal to the quantity of water extracted and the brickwork will take up no more. The liquid hydrofuge is composed of linseed oil, resin, litharge, garlic, and paraffin, about four ounces of which are used to the superficial yard. When this composition is thoroughly dry the plastering is redone. For this, Portland cement is preferable, but whether it or ordinary plaster be used, the wall is left uncovered by it from four to six inches from the ground, this space being covered with a hydrofuge made of bitumen, ship pitch, and tar, which prevents any damp reaching the plaster from the soil. We cannot doubt but that this plan will be found thoroughly effective in drying and extracting damp from either new or old walls.

(To be continued.)

ART NOTES.

Preparations are in progress for the Exhibition of Ecclesiastical Art, to be held at Newcastle-on-Tyne, in the month of October next. Many of the leading manufacturers have already promised their support, so that there is every prospect of a very excellent show. The Loan department in connection with this Exhibition gives indications of being this year more attractive than in past ones, as some of the best known collectors have promised to send contributions.

Prize Competitions for Designs appear to be the order of the day. It is a ready and legitimate way of advertising, and at the same time confers a benefit upon a large community who oftentimes have to complain of being left out in the cold. The success of Mr. Raphael Tuck, of City Road, in the spring of this year, has produced a competitor in the firm of Hildesheimer and Faulkener, of 41, Jewin Street, E.C., who offer an aggregate sum of £3,500, which, with purchases, will be augmented to £5,000, for the best 100 sets of original designs and pictures for Christmas and New Year cards. This liberal offer ought certainly to evoke a good response, as the prizes are such as to well repay the successful candidates—the highest being £200, and the lowest £20.

The Judges appointed are W. P. Frith, R.A., J. E. Millais, R.A., and Marcus Stone, A.R.A., names that will inspire confidence in their capacity and impartiality. The effect of such an offer ought to be a great stimulant to artists of all positions, high and low.

The Designs will be exhibited at the Gallery of the Society of British Artists, in Suffolk Street, and all communications relative to the same are to be sent in to Mr. E. Freeman. All designs have to be in by the 26th of August next.

Another Prize Competition is that of Warren, Fuller, & Co., of New York, for designs for wall papers. This firm offer no less than £450, divided into five prizes of £205, £105, £60, £50, and £40 respectively. The Exhibition of them will be held at the American Art Gallery, Madison Square, New York, October, 1881.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

BY THE EDITOR.

CHAPTER VIII.

POLLARD OAK, ROOT OF OAK, AND MAPLE.

TO imitate pollard oak in oil colour requires a somewhat different process than the distemper method before described, and, although an older process, is not nearly so effectual, but many grainers use no other. We think this arises from a want of knowledge of a distemper process; we do not know, but we should attribute it to that course, as when once the method we have described is thoroughly mastered by the student he will not revert to the oil process. In graining pollard oak in oil exactly the same grounds and graining colour may be used as for distemper, but, of course, ground in oil. To grain this we first rub in a bright graining colour mixed in the ordinary way, then dab in the masses of knots with a sash tool or a sponge, using Vandyke brown and drop black separately, and giving a touch of black here and there in and amongst the knots; we now take a flat hoghair fitch or a stiff hoghair mottler about one inch wide, dip it into turpentine and press out the turps before applying it to the work. With this tool we sweep round the knots and work them into shape, giving the grain a lead or run lengthways of the panel with a slightly serpentine or wavy form. By dipping the tool into turps and working around the knots again we form those bright lights which are seen on the upper side of each knot or curl of the grain of this wood. Small stiff fitches may be used with advantage in taking out the reflective lights around the knots. When this is done, and while the colour is wet, the fine dapple or figure may be wiped out, fine and coarse, running across the grain in the manner before described. When dry the work may be glazed or overgrained in the same manner as in distemper work. As we have before said, root of oak is very similar to pollard oak in its grain and knots, having, however, this marked difference—that the root of oak is composed of masses of knots, the one working into the other in consecutive rings without any, or scarcely any, plain parts, as in the pollard. In cutting the root up for use it is, of course, cut across and not lengthway of the butt end of the tree, consequently it has its grain and knots arranged in rings of knots, with dark patches of colour in and amongst its circular grain. It may be imitated in exactly the same manner as the distemper process described for pollard oak, but requiring the grain to be pencilled and worked out by the pencil and dark colour. To imitate this wood in

oil we work it in the same manner as for the pollard oak, but with this difference; we add a little japanners' gold size to the dark graining colour, and when the masses of knots are dabbed on in the rough, we take a very open overgrainer (a pencil overgrainer is best), dip it into turpentine and carefully work it round the masses of knots, taking care not to have too much in the brush or it will run. The turpentine acts upon the graining colour and opens the grain round the knots, and, while it is wet, it may be worked into shape with the fitch, or mottler, as before described, and leading lines put in with the pencil and Vandyke brown and black. In the root of oak there is no dapple or figure as displayed in pollard or plain oak, although there are very fine markings which spring from each mass of knots, but these are not of importance in the imitation.

BIRD'S-EYE MAPLE.

Of this beautiful wood there are more than sixty different species, mostly natives of the temperate parts of the northern hemisphere, and particularly numerous in North America and in the north of India. The leaves of the maple are usually five lobed palmate, although there are some leaves which have six or seven lobes. This leaf is highly ornamental in form and lends itself admirably to decorative purposes. The flowers of the maple abound with honey, of which fact the bees are aware and avail themselves most extensively. The calyx of the flower is generally divided into five segments, and the petals, when present, are generally equal in number to the segments of the calyx, and grow from the margin of the fleshy disc. The fruit is formed of two-winged nuts, each with one or two seeds. The common maple is a small tree and is a native of Great Britain and of many parts of Europe and Asia. The leaves are small and usually five lobed. The wood is compact, fine grained, and takes a high polish—much used for cabinet work and by turners. There is one kind, indigenous to North America, which forms a kind of undergrowth in the woods, the bark of which is beautifully striped with longitudinal black and white stripes; its wood being very white, and useful for inlaying with other woods. The greater maple, or sycamore—commonly called plane tree in Scotland—attains a height of seventy to ninety feet, this species being useful for many purposes, its wood being white, compact, and firm. But the species with which we are more immediately concerned here is that which is called bird's-eye maple, or sugar maple (*A. Saccharenum*), a native of North America, which has a great resemblance to the sycamore, and grows in large numbers in the northern parts of the United States and in the British possessions, where large quantities of sugar are made from it. The trunk of the sugar maple is generally more slender than that of the sycamore. To obtain sugar, holes are bored in the trunk of the tree when the sap is ascending early in the spring, before the winter has passed away. At first the holes are only made an inch deep, but afterwards deepened to two inches, and the sap thus collected is evaporated in boiling over a quick fire to the consistency of syrup, then strained and poured into moulds, in which it crystallises into a coarse grey or brown coloured sugar; it is afterwards refined. Four gallons of sap yield about one pound of sugar, and a single tree from two to six pounds in the season; good vinegar is also made from it; also a kind of molasses, very much superior to that made from the sugar-cane. The latter product of the maple is much relished by the Americans, accompanied by hot buckwheat cakes, &c. The wood of the sugar maple is that known to the cabinet-maker and the decorator as bird's-eye maple. It is of a beautiful light creamy colour, full of small knots which are somewhat like the eye of a bird—hence its name. These are accompanied by a soft silky mottle, or undulating grain or fibre, which gives out soft reflective lights and shades; it has also a very graceful and beautiful overgrain of a reddish hue admirably suited for imitation. As a furniture wood, bird's-eye maple is much used in America, but does not seem to have been employed to any great extent in England. Why this is so, we cannot tell, except it is that our own native woods—as the oak, birch, beech, and ash—are stronger and cheaper, or better adapted. We have never seemed to take kindly to maple furniture, although it is coming much more into use at the present time, yet we know of no other light coloured wood (with the exception of Hungarian ash) that is so well adapted for using for bedroom furniture, and for imitation upon the woodwork of our dwelling-houses and grained bedroom furniture, it stands next to oak in the extent of its use as a painted decoration. This is not to be wondered at when we consider that it is clean looking, delicate in its markings, pure in its tone, and in every respect well adapted to the purpose. Our English maple will not compare with the American for beauty of grain. The usual mode of cutting up this wood is in planks, which are afterwards sawn into thin veneers, but our transatlantic cousins have a method of sawing or cutting continuous veneers; the block or part of the butt of the tree is so placed that the saw traverses or cuts round the circumference of the tree and cuts the thickness of the veneer from the outside surface in one continuous ribbon, just as we would uncurl a roll of cloth. This method of cutting necessarily alters the character of the mottle and bird's-eye materially, but, no doubt, has its advantages. Next month we shall describe the best methods of imitating maple both in water and oil.

(To be continued.)



Yours Faithfully

John J. Grace

CELEBRATED HOUSE DECORATORS.

A HISTORY OF THE MOST DISTINGUISHED DECORATING FIRMS IN GREAT BRITAIN.

No. 1.—JOHN G. CRACE & SON,

WIGMORE STREET, LONDON, W.

IT'S a long cry back to '45, when "Bonnie Prince Charlie" excited the hopes of his friends, and the fears of his foes, by that romantic but ill-advised and desperate raid which ended so disastrously for him and his supporters, and that left the Guelphs in undisturbed possession of England's throne. Within five years of that event, the firm whose history we are chronicling inaugurated their career. "When George the Third was King" has a quaint, old-world ring about it that carries us far back into the past, yet two years before the first of the "Four Georges" ascended the throne of England, the founder of the firm of "Craces" was born.

The area of time covered by the intervening years from then till now is probably richer in its contributions to the knowledge of the world and to the amelioration of mankind than any other corresponding period, and the successive representatives of this firm have witnessed change follow change, political, social, and scientific, the most stupendous in their character and influence, yet all tending towards the social, intellectual, and political elevation of humanity. When we remember that the present head of the firm is only the third in direct descent from Edward Crace, its founder, and that during the period of one hundred and thirty years that the business has existed, it has been carried on by only five individuals, we both marvel at and admire the extraordinarily fine physical powers exhibited.

Edward Crace, the first member and founder of the firm, was born in the year 1725, and received a training fitting him for the profession of an artist, but in 1750, abandoning that calling, he turned his attention to house decorating. In 1773 he decorated the Pantheon, Oxford Street, when it was adapted for dramatic performances by James Wyatt, who just prior to this had been elected an R.A., and was then the most prominent figure in the architectural profession. In 1780 Mr. Crace received the appointment from the Crown to take charge of the pictures at the Royal Palaces (Windsor Castle, Hampton Court, Kensington Palace, and Buckingham House), an office of considerable importance and responsibility. This position he retained till his death in 1799, after which event the business was carried on by his son, Mr. John Crace, who had been identified with his father many years prior to his death.

Mr. John Crace was born in 1754, and was a contemporary of Sir Robert Taylor, the well-known architect, and his more celebrated compeers, Sir William Chambers, who will always be remembered as the architect of Somerset House, James Stuart, the celebrated "classic" architect, and Sir John Soane, another name widely known, not only as one of the most successful architects of his time, but more especially as having bequeathed for the use of the nation his valuable collection of antiquarian and art treasures, together with his house, in Lincolns Inn Fields, now known as "The Soane Museum." By all these eminent men Mr. Crace was employed, and for them carried out extensive and important works. He was also employed by George III. and the Prince of Wales. For the latter he executed the decorations at Carlton House. Amongst his public works were the Opera House, Drury Lane and Covent Garden Theatres; he died in the year 1819. His son, Frederick Crace (born 1779), continued the business of his father, and completed the important works in hand at Carlton House and other places. It was this representative of the name that decorated the Pavilion at Brighton for the Prince Regent (afterwards George IV.) in addition to extensive commissions at Windsor Castle. With such important public works in hand, their private connection was certain to extend proportionately, the principal of the nobility being amongst the *clientèle* of the firm. In the latter years of his life Mr. Frederick Crace devoted himself to forming a collection of maps and views of London. This collection became of such importance and value that this year (1881) the managers of the British Museum purchased them on behalf of the nation; he died in 1859 at the advanced age of 80 years.

We now come to the present head of the firm, Mr. John Gregory Crace, whose portrait we issue with this number of our journal. Mr. J. G. Crace was born in the year 1809 (six years before the battle of Waterloo). In conjunction with his father, he carried on the decorative business, but in the year 1840, perceiving that we were not taking our proper position in the art world, and desirous of strengthening himself in the scheme he was then contemplating, he undertook a journey through the Continent, visiting France, Germany, and Italy, and noting with specific purpose the best examples both of modern and ancient art work. Returning from this tour, reinforced and confirmed in his intentions, Mr. Crace engaged the best artistic talent he could command, and was thus enabled, not merely to execute work of a much higher class than had before been attempted, but the example he set was an incentive to others, and gave an impetus to the feeling that about that time was just manifesting itself for better and more artistic work than heretofore had been in vogue.

It was about this time that Mr. Crace, perceiving the disastrous effects often produced by the decorating and furnishing being in two distinct hands, through diversity of views and aims existing between the decorator and furnisher, added to his business a furnishing department, thus bringing together, and under one direction, what, in good work, should never be apart.

In 1848 Mr. Crace was specially recommended by Sir Chas. Barry to carry out the decorations of the new Houses of Parliament at Westminster, a selection that carried with it considerable distinction and honour. Sir Robert Cockerell, the eminent architect, also recommended him to his brother, and he decorated that gentleman's house in Hyde Park Gardens.

He was one of the earliest and most active sympathisers in the work of promoting the Great International Exhibition, in 1851. We find his name amongst the Special Commissioners, and as one of the Jurors in Section 26, to adjudicate on works of decoration, furniture, &c., &c., in connection with Lord Ashburton, Messrs. Jackson, Webb, Snell, and Aubert; and, in conjunction with the late Augustus Welby Pugin, he carried out the decorations of the Mediæval Court. When the "Palace" was transferred to Sydenham Mr. Crace was appointed one of the architects, and it was he who designed the Queen's apartments in that building.

In 1855 he was directed by Prince Albert to decorate and furnish the suite of rooms at Windsor Castle that had been set apart for the reception of the Emperor and Empress of the French, and in 1861 he received a further commission for extensive alterations, carried out under the direction of the Prince just before his lamented death.

In 1857, when the art treasures of the world were "focussed" together at Manchester, Mr. Crace was requested by the committee to superintend and direct the decoration of the building, and, as a natural sequence, when the next great show took place in 1862, at Kensington, it was to him that the committee turned, and, availing themselves of his great experience, entrusted to him the decoration of the structure.

Mr. Crace was also commissioned to decorate the saloon of the Great Eastern, and a writer of the leading paper thus speaks of it:—

"The fittings are exceedingly handsome and substantial; but the decorations of the huge iron walls and girders have been reserved until after her first trip, and are now only painted plain white. The absence of decoration in them, however, is amply compensated for in the chief saloon, which has been furnished to show the superb style in which the whole will be decorated when the Great Eastern begins running to the East. On this saloon Mr. Crace has lavished his utmost efforts, and the result is a combination of taste and richness to an extent which is really astonishing.

On September 12th, 1859, hardly a month after the above was written, the nation was shocked and distressed by the news of the terrible explosion which had taken place—an explosion accompanied by much loss of life, but that was most remarkable for the escape of the passengers assembled on board to see how the monster ship acquitted herself in this her trial trip. The explosion occurred at the only moment during the voyage when the saloon was empty; thus, by a merciful interposition, a terrible calamity was averted. Mr. Crace had barely got out of the saloon when the crash came. A correspondent of the *Times* who was accompanying the vessel, describing the havoc made in the saloon by the disaster, wrote:—

"The fore part of Mr. Crace's beautiful saloon was a pile of glittering rubbish—a mere confused mass of boards, carpets, shreds, hangings, mirrors, gilt frames, and splinters of ornaments.

"The rich gilt castings were broken and thrown down, the brasswork ripped, the handsome cast iron columns round the funnel overturned and strewed about."

Amongst the many important works which the present firm have executed, the following may be enumerated: the decorative work for the late Duke of Devonshire, at Chatsworth, Chiswick House, Devonshire House, and Lismore Castle; Taymouth Castle, for the Marquis of Breadalbane; Windsor Castle, for Her Majesty the Queen; Bestwood, for the Duke of St. Albans; Ickworth, the seat of the Marquis of Bristol; and recently very elaborate decorations for the principal rooms at Longleat, for the Marquis of Bath, one of the most interesting of the old mansions of England, to which Macaulay in his "Armada" alludes:—

"O'er Longleat's towers, o'er Cranbourne's oaks, the fiery herald flew,
He roused the shepherds of Stonehenge, the rangers of Beaulieu."

The last work of importance which Mr. J. G. Crace has been engaged on, is at Mercers' Hall, where he has given special attention to the internal fittings of the grand staircase, vestibule, and drawing-room, and devoted much thought and consideration to the designs for the decorations and carved ornaments.

Mr. Crace has always taken a warm interest in the diffusion of a sound knowledge of decorative art amongst working men, and, by lectures and practical instruction, has done much to promote a more intimate acquaintance with the higher branches of the trade. He has also delivered addresses on decorative art and germane subjects before the Royal Institution of British Architects and other kindred societies.

Associated with Mr. Crace is his son, Mr. J. D. Crace, who has studied the art of the best masters in Italy and the Continent. Mr. J. D. Crace already ranks high as an authority on decorative art; his most recent contribution to the literature and elucidation of the question being a paper on coloured decorations, read before the Conference of Architects, in the month of May last. The paper evidences the mastery and

grasp of the subject that Mr. Crace possesses, and is replete with interesting and original thought. In his hands, the high repute of the firm is in no danger of becoming dimmed through want of capable conduct.

The brief history we have been enabled to lay before our readers, of the oldest and most distinguished firm of decorators in the country, cannot fail to be both interesting and instructive. We see in it a most remarkable instance of a race of men, highly endowed with fine physique, and a strong artistic sense; carrying on their business from generation to generation, laying broad and deep its foundations by sterling excellence of workmanship, directed by high artistic judgment and administrative capacity, exemplifying, in a remarkable degree, the value and worth of the maxim of the "Old Book"—

> "Whatsoever thine hand findeth to do
> Do it with all thy might."

THE DECORATIVE ART EXHIBITION, NEW BOND STREET, W.

FIRST NOTICE.

THE first step in a new undertaking is always one of great moment and considerable interest, and when the first is but the prelude to a succession, the necessity for starting well becomes proportionately increased. The more ambitious the scheme the more desirable it is that at the outset there shall be no mistakes or false moves made. Of course we don't mean to infer that any scheme or enterprise, however simple, can be inaugurated and put into execution without many new experiences and lessons—it is a necessity of all such cases—but we refer to mistakes in the conception of the character and scope of any undertaking. Fortunately for the welfare of this new departure in exhibitions, the management fell into fit and capable hands—men who by their past experience and training were capable of taking a right view of the exigencies of the position, and by a bold discretion commanding success. We can readily understand that had the question been taken up in any narrow or restricted sense it would inevitably have resulted in failure, but by the broad-minded conception of the functions of what such an exhibition should be, the Committee of Management have found the "Missing Link."

Since '51 we have had exhibitions innumerable: Industrial—Art—General—and specific ones dealing with specific branches only; but it has been reserved to the directors of the new undertaking to see and supply what was decidedly a want in the social scheme. For good or for ill, Modern Art is divided into two broad camps—Fine Art, and Decorative Art—and although the dividing line is at times very thin, if not quite imperceptible, nevertheless there it is. We don't know that there is any cause for regret in this. From some standpoints it has its advantages, and though we deplore the neglect and disuse into which Decorative Art was permitted to fall during part of last and this century, we hope that the awakening interest now manifesting itself on every hand is a happy augury of triumphs to be won in the future. No means are more likely to promote this than the gathering together of the best examples of past and contemporary art, and we may hope for the best results from this new experiment.

The present Exhibition covers in its range almost every branch and department of Decorative Art Work, and is fairly representative, though we may confidently look for a much larger development on the same lines as time rolls on.

In the first room are some interesting examples of a comparatively unknown work—embroideries, collected in the Abruzzi, Italy. They are very unusual in design, some of them evidencing familiarity with Moresque forms, and all of them very delicate in execution. In the same room are some specimens of "Artistic Faïence," shewn by Eugene Schopin, in their natural colour, with the addition in parts of gold. They look exceedingly handsome and rich; but some of the best exhibits are spoilt by the introduction of painted work amongst the modelled foliage and flowers; the taste would be questionable under any circumstances, but when the flowers painted are ill done their condemnation is doubly complete.

Mr. Arthur Silver exhibits a set of designs for Dado, Border, Filling, and Frieze (15), shewing floral forms in water lines. The disposition of the ornament is good and the colouring quiet.

Mr. Geo. Howe shows a Frieze (16), painted by the process he has given his special attention to. The technical excellence of this work is considerable, but we feel the want of contrast in form very much. Had the panel been of a set character it would have contrasted well with, and enhanced the value of, the flowing lines of the festoons on the styles.

A number of the exhibits shown and labelled "Decorative" have no claim whatever beyond the title; for instance, Mr. James Webb, in No. 2 room, shows a marine view, "Moonlight at Sea," which differs in no wise from an ordinary pictorial rendering of such a subject, yet it is dubbed "Decorative Panel;" and this criticism is applicable to many paintings in the rooms catalogued as "Decorative."

Mr. Henry Holiday is a large contributor, and what he sends are well worth looking at, not the least interesting being his carefully finished studies of the figure. Of the cartoons for stained glass we like No. 117—"The Return of the Dove to the Ark"—the best.

Another very carefully drawn and finished design for stained glass is the one sent by J. T. Fouracre (129), the subject being the figure of the Apostle John. There is a great deal of force and character in the drawing. The name of Mr. N. H. T. Westlake, F.S.A., is sufficient guarantee that any work he sends will be worth seeing, and his two exhibits, Nos. 115 and 124, are worthy of careful inspection.

Mr. J. H. Pollen sends some designs to the exhibition which we had occasion to criticise in our February issue.

Two designs by Walter Crane, for execution in Mosaic, are admirable examples of fitness in design to the materials in which they are to be finished. A design for tapestry (105) in the Pantheon, Paris, by Ch. Lamiere, the celebrated Parisian decorator, is a notable sample of bold treatment and successful colouring. Mr. W. Hensman contributes four designs—two figures (Summer and Winter), a design for a wall paper, and a pen and ink drawing of fireplace, &c. Mr. Hensman is not so successful in his figures as in his other decorations, though the figures are his own, and somewhat away from the stereotyped creations we have been deluged with during the last few years. The design for a wall paper (90) is a very bold and able rendering of the African marigold and laburnum. The forms are well disposed and admirably coloured. In the pen and ink sketch (127) there is a little confusion from want of bold shadows. We imagine the present drawing has been prepared for photo-lithographing, and were it reduced by that process from the present size, the deficiency would be supplied. A very quaint and interesting exhibit is one sent by P. Levin (77) being a design for a clock face, surrounded by various emblematical subjects, and capable of telling the enquirer many wonderful and curious things.

Mr. E. Prignot also sends four drawings of great interest for their clever designing and draughtsmanship.

A lady exhibitor (Miss E. C. Colingridge) sends a design for stained glass, "The Waking of Brynhilda" (100). This drawing possesses considerable merit, but the tree trunks in the back ground are too prominent and need subduing—a fault easily remedied.

A Design for a ball room decoration in the Italian style (101), prepared for the Earl of Leconfield by Mr. Hy. G. Lilly, is a very clever and elaborate drawing.

Mr. J. Pearse, jun., sends a Panel Painting of Birds (64) exceedingly clever in its execution, and interesting from its being painted on ordinary brown paper, the peculiar rough ground of which gives an effect that no painted surface would yield.

Two of the most striking Panels in the Exhibition are those sent by Mr. William Hughes—"Golden Pippins" (67), and "Plums" (72), worked on gold ground. They are handled in a masterly manner.

Mrs. L. Aumonier sends a Floral Panel Decoration (61) that is of considerable merit in its rendering, but is spoiled by having what—according to all the laws of construction—should be one panel, made into two. The propriety of running ornament through mouldings and stiles of panels or doors is very much open to question, and, in nine cases out of ten, is productive of absurd results. The boundary line of a panel is its moulding, and the decorations of such panel should be complete within those lines. Two good examples of Painting on Tapestry, by Mr. F. Du Mont (66 and 71), are exceedingly clever, while Mr. E. Buckman's exhibits, "Decorative Treatment of Modern Subjects" (54), are good specimens of difficulties surmounted; they are just the ordinary itinerants of our streets grouped together in artistic fashion.

No. 96, a Panel on Satin Wood, in the 18th Century style, is an exquisite bit of fine decorative painting.

(To be continued.)

SPECIFICATIONS.

Specify: To mention or designate a particular thing or things, to particularise.

WHAT is a specification? What is its object? How should it be made out? What should it include? What a specification should not be. What is its value?

It has been said, metaphorically, by some authority, that there is not in existence a single Act of Parliament through which a coach and six horses may not be driven. This, no doubt, is only true in part; what is really meant, we suppose, is, that there are but few legal documents in which an ingenious limb of the law cannot find a flaw. However, be this as it may, it serves to show how necessary it is that all documents or agreements, of whatever nature, should be clear and definite in expression, leaving no doubt on the mind as to their meaning.

In making out specifications for painting and decorating, to which this article specially refers, there is, as a rule, a looseness and want of definiteness, which often leads to much annoyance, angry disputes, and ultimate benefit to the lawyers. Now all this may be avoided if the specification of work to be done is made out in a proper manner, and our object in this paper is to show *how it may be properly done.*

First we will ask,

WHAT IS A SPECIFICATION?

A specification is, or should be, a detailed list of the various works to be done in any branch of trade: what is to be done; how it is to be done; under what conditions it is to be done, and when it is to be done.

WHAT IS ITS OBJECT?

The object sought to be obtained in the making out of a specification is, first, to give to the individual for whom the work is to be done a clear and distinct knowledge, in detail, of each portion of the work to be executed, and how it is to be carried out. Secondly, the specification should be so made out that the contractor will understand exactly what he has to do. And if afterwards additional works are ordered, which have not been mentioned in the original specification, he (the contractor) will be in a position to make his charges for such additions without a possibility of their being disputed.

HOW SHOULD IT BE MADE OUT?

A specification should be expressed in clear and distinct language. Each separate item should be particularly specified, what it is, what is to be done at it, and how it is to be finished, so that it is not possible to make a mistake as to the meaning of what is intended.

WHAT SHOULD IT INCLUDE?

A specification should include all that the experience of the architect or tradesman giving it knows will have to be done in order to complete the work in a satisfactory manner.

WHAT IS THE VALUE OF A SPECIFICATION?

The value of a specification will depend entirely upon the manner in which it is drawn up. If properly done it will, in the first place, set aside all cause for dispute; and in the second, enable both parties to a contract to understand clearly what are the obligations incurred, how they are to be carried out, under what conditions, and the exact extent and scope of the works specified, thus giving the deed a definite and decided value from every point of view.

WHAT A SPECIFICATION SHOULD NOT BE.

A specification should *not be* a misleading document, as too many of them are. It should not presume upon the inexperience or ignorance of the individual for whom the work is to be done, and only specify the leading points, knowing at the same time that there are certain works which are not mentioned, but must of necessity be done as a consequence of other parts being done as specified, thus enabling the contractor to give a lower estimate and depend upon the extras for his profits. This is, unfortunately, too often the case, and if not directly dishonest is indirectly so, and as a natural consequence is a fruitful source of annoyance dispute, and litigation. On the other hand, we have known architects' specifications so vague and indefinite in their drafting as to involve contractors in serious financial loss or the uncertainties of an appeal to the law.

In our next month's issue we shall give the form of a specification, drawn up in the best manner to fulfil the proper conditions of such a document, as above described, which will, no doubt, prove both interesting and useful to many of our subscribers.

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"During such investigation as I have been able to give to the lives of the artists whose works are in all points noblest, no fact ever looms so large upon me, no law remains so steadfast in its application, as the fact and the law that they are all great workers.

"When I hear a young man spoken of as giving promise of high genius, the first question I ask about him is always—Does he work?"—*Ruskin.*

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.

CHAPTER IX.

PREPARATORY PROCESSES.

FILLING-UP colour is also made of varnish colour, as well as of distemper, and as the process of polished enamel painting is in much of its manipulation identical with the filling up process, we shall here describe the various methods of executing it.

We have considerable doubts as to whether polished paint may be considered in good taste for the interior of drawing-rooms, or, in fact, for any room. There is a garishness about gloss or polished colours which is scarcely compatible with that quietness and repose so necessary to the perfect satisfaction of the educated eye. Polished glass is beautiful and never out of place; the same may be said of marble, of gems, and of steel and brass work. With all these polish is the one thing needful to develop their beauty and finish, and, in fact, is a necessity of the material. This is so self-evident that we never for a moment doubt its propriety or imagine they would be better otherwise. Fitness, beauty, and utility are a consequence of the polish in all these cases, and therefore proper and right from every point of view; but the same reasoning will not apply to polished paint, that is to say, plain tints of colour.

Imitations of woods and marbles may be polished with propriety and without offence to good taste, simply because we expect to see them so, and they would not be finished if left unvarnished and unpolished; but it is otherwise with plain tints, which when glossy have too much the look of the japanners' shop or tea-tray business. These remarks refer principally to that so-called enamel work which is produced by the mere painting of the work, and finishing it by varnishing, which, as a matter of course, soon becomes discoloured, and even when first done is not strictly enamel painting. The best enamel work is free from the objections urged against the common, its manipulation requiring so much patience and care that it is difficult to find men who have the necessary qualifications for preparing such work, therefore it is very rarely we see a good job. In getting up enamel work much care is requisite in the selection and use of the material required. The filling-up colour which forms the body of the enamel is of the greatest importance to the ultimate success of the work. Of this material, as we have before said, there are several kinds manufactured—black, brown, red, and yellow, for coach painters, japanners, &c., but for use for interior work we prefer white lead filling, as we can by adding the necessary staining colours (which do not affect the properties of the enamel) form a solid body of colour of the same tint, or nearly so, as that with which it is required to be finished, and thus do away with the objections which may be urged against the dark filling, for it will be evident to the plainest comprehension that if work which has to be finished white, or with very light tints of colour, be filled up with the dark-coloured filling, the number of coats of paint which would be required to obscure or kill the dark colour would cause the work to be totally unfit for polishing; at all events, there can be no question but that work which is left with a smooth, even surface produced by rubbing alone must be much finer in texture than any that can possibly be left with the brush.

The white lead for making the filling should be ground stiff in turpentine, and about one-fourth part of the ordinary white lead ground in oil added to it, in order to prevent the enamel cracking, which it has a tendency to do, except there be a little oil mixed

with it. A sufficient quantity of polishing copal or best carriage varnish should now be added to bind the lead so that it will rub down easily, which fact cannot be properly ascertained without actual trial, inasmuch as the drying properties of varnishes vary, and other causes influence the matter as well. If there is too much varnish in the filling, it will be exceedingly difficult to cut down, and if too little, it is apt to be friable, and will break up in the rubbing, so that it is always the best and safest plan to try the enamel colour before commencing anything important.

The filling being properly mixed should be laid on the work in the ordinary manner, using it rather freely, but also laying it as level as possible, as this saves much after labour in rubbing down. It may be as well to state here that no filling should be put upon new work, except the same has had two or three coats of oil paint, nor upon old work unless it has had one coat; this gives a key for the filling to bind to. Successive coats of the filling should now be laid on the work until there is a sufficient thickness to cut down to a level surface the whole of the indentations and undulations of the panel or other surface. One day should intervene between each coat, in order to allow it to harden in some degree. When a sufficient number of coats have been put on—which number will, of course, depend upon the state of the work to be filled up—it should stand for a fortnight or three weeks, until it gets thoroughly hard; it will then be ready for cutting down, which must be done with ground or powdered pumice-stone and water and thick felt. The felt used should be such as the marble-masons use for polishing marble and which varies in thickness from one-eighth to half an inch, and should be fixed upon pieces of wood; a good cement for the purpose being shellac dissolved in wood naptha and applied rather thick. These pieces of wood should be of various sizes and shapes, and about one inch thick, so as to give a good grip for the hand. Some should be square, others pointed at one end, so as to get into corners, others round on one edge for getting into the irregular parts of the mouldings, &c. The pumice-stone to be used should be of different degrees of fineness, and should be carefully selected, so as to ensure its being free from any foreign substance. It is sold ready ground or powdered, but in situations where it cannot be conveniently got, it may be prepared from the lump, by grinding in water and drying or crushing with a stone and muller and then passed through fine hair sieves or fine muslin; by using these, of different degrees of capacity, the ground pumice may be produced of different degrees of fineness. Unless great care is exercised in this matter it will be found that particles of grit will get mixed with it, which, in using, get on to the work and make deep scratches, thus causing endless trouble and annoyance, besides spoiling the work. The greatest care is also required in keeping the felt clean and free from grit. Workmen are sometimes careless in this matter, and when working set down the felt on the step ladder or floor, and thus particles of sand or grit get upon it, and so mischief is done. In cutting down it is best to use a soft piece of lump pumice-stone to take off the rough parts first. The felt and ground pumice should then be used. The work should be wet with a sponge, and the felt soaked with water and then dipped into the pumice-stone powder, and the work rubbed with it, keeping it moderately wet, and rubbing with a circular motion (not straight up and down or across) and a light touch, using only just as much pressure as will cause the pumice to bite, which will be very clearly felt while the hand is in motion. Much care and patience is required to do this properly, for if the pressure is too great it forces the pumice into the body of the filling colour, and scratches it instead of cutting or grinding it fairly down. No hurry will avail in doing this work, it must have its time; hurry only defeats the end in view, and often causes much unnecessary labour. A scratch caused by want of due care and too much haste will often throw the work back for days, and involve the cost and labour of re-filling. We find in practice that the purpose is best answered by using the pumice-stone the coarser kind first, then the medium, and finish with the finest. It will be found of advantage to allow a day to elapse between the rubbing, for when the surface is cut down the filling will in all cases be comparatively soft underneath, and if it is allowed to stand for a day the newly exposed surface gets harder and, of course, rubs down better in consequence. The pumice should be well washed off the work occasionally, in order that we may see what progress is being made, and if it requires more rubbing in one part than another; or if, while in progress it is found not to be sufficiently filled up in any part, it may have one or more coats of filling after it has been roughly cut down, and before much labour has been spent upon it. When sufficiently rubbed down with the pumice-stone—that is to say, when it has been cut down to a fine, level, and uniform surface—the work should stand for a day or two to harden. It will now depend entirely upon the state of the work whether it can be polished upon the filling, or whether it will have to be varnished and then polished. If the filling is of the right colour, and has been rubbed down of one uniform tint, we prefer it to be finished in this state, because, in the first place, it will have a surface texture which cannot be got by any other means. Polished in this state, there is an absence of glare-polish (if we may use the term), which is inseparable from varnish polish. After it has stood a day or two, the work, if it is intended to be left in the state we have been speaking about, must be

polished in this wise: Take a piece of clean felt and rotten-stone, and use them either with oil or water, and with these rubbing the work as before until the polish begins to appear; then take a boss (*i.e.*, a ball of cotton wool enclosed in fine silk), put the rotten-stone upon it, and keep rubbing with the circular motion of the hand until the polish is uniform and equal all over. The rotten-stone must now be carefully cleaned off. If it is in oil, clean off with fine flour; if it is in water, clean with sponge, clean water, and wash-leather, taking care not to scratch. A clean damp chamois leather will now be required, which must be held in the left hand, leaving the right free and perfectly clean. With the ball of the right hand press gently upon the panel, and draw it forwards towards you. If this is done properly it will bring up a clear polish upon the work. The hand should be kept slightly damp by drawing it across the damp leather every time it is applied to the work. If this is done effectually a slight whistling sound will be heard while the hand is in motion; when this is so, the polish will be sure to follow. The polish thus produced on the filling alone will be of the kind we have spoken of above, and will not be objectionable to even the most fastidious taste; but if the work has to be finished with a brilliant lustre and high degree of polish, it will, after being cut down with the pumice-stone and felt, have to be coated with two or more coats of the best polishing copal varnish, having a little finely-ground flake-white mixed with it—that in the tubes got from the artists' colourmen is the best, as it is sure to be ground fine,—that is, if the filling is white; but if it is tinted, this varnish white will have to be tinted also. The flake-white should be mixed with the varnish in sufficient quantity to make a creamy mixture—one, two, or three coats as may be desirable. This should now stand for three or four weeks until it becomes hard—the harder it is and the better it will polish. It must then be cut down with felt and the finest ground pumice-stone in water, and then polished with the rotten-stone as before described. By this means a bright polish may be obtained of a very enduring nature. The same process will, of course, answer for polishing all varnished work which will admit of the application of oil varnishes, such as imitations of woods and marbles, &c.

(*To be continued.*)

An International Exhibition of great importance is now open in the Horticultural Gardens at South Kensington. All the sanitary appliances which modern ingenuity and invention have placed at the disposal of poor humanity are to be found here, from non-poisonous paints to sanitary drain pipes. The exhibition should be visited by every one interested in healthy houses.

We regret that the exhibition held in connection with the Manchester New School of Art, was so lamentable a failure; it was certainly not through lack of interesting and instructive exhibits, but we suppose that they were "over the heads" of the popular taste. A heavy debt remains on the place, which we trust the public spirit of the city will soon remove.

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SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND REVISED FROM THE HIGHEST AUTHORITIES, ENGLISH AND FOREIGN.

CHAPTER VII.

SHIELDS.

WE here give a few examples of the most ancient form of shield which have come down to our own times without any alteration. As we have before remarked, the shield had its origin in the desire of combatants to protect themselves from the swords or other warlike weapons of their adversaries (hence its name); and we find some form or other of shield used by all nations, both savage and civilised, in which hand to hand encounters were the only means of fighting. Since the introduction of fire-arms the shield has been laid aside as being no protection against a bullet, and, with the exception of nations who still remain in primitive ignorance of the use of breech-loaders, needle guns, and the numerous arms of precision used in modern warfare, the shield has been relegated to the illustration of heraldry. Shields were made of wood, leather or ox-hide, of metal, and various other materials, and were called by the name of shield, buckler, targe, &c., &c.

> "Ill fared it then with Roderick Dhu, that on the field his targe he threw,
> Whose brazen shield and tough bull hide had death so often dashed aside."
>
> "*Lady of the Lake.*"—Scott.

In his notes to the poem he describes the shield as a round target of light wood, covered with strong leather, and studded with brass or iron, which formed a necessary part of a Highlander's equipment. In charging regular troops, they received the thrust of the bayonet in this buckler, twisted it aside, and used the broad-sword against the encumbered soldier. In the civil war of 1745 most of the front rank of the clans were thus armed; and Captain Grose informs us that in 1747 the privates of the 42nd Regiment (then in Flanders) were, for the most part, permitted to carry targets or shields, this being, we think, about the latest date of regular armies being armed with the shield or buckler as a means of defence. But in the days when men fought with sword or spear, and axe and mace, the shield was a necessity, and was covered with rich and quaint designs emblematical of the rank, state, style and circumstances of the individual at the time it was used. Thus we find that Scott, in his romance of "Ivanhoe," describes his hero at the celebrated tournament of Ashby-de-la-Zouch as bearing on his shield the device of a young oak tree torn up by the roots, with the Spanish word *Desdechado*, signifying the "Disinherited." The knights at this tournament had their shields hung up in front

of their tents (as was the custom at such displays), and each knight as he entered the lists selected one amongst the opposing knights as his special antagonist, and expressed his intention by striking the said knight's shield with the point or butt of his lance; if he merely touched it with the butt it simply meant a friendly passage of arms, but if he struck it with the point it meant a battle *à l'outrance*, or to the death. Thus Ivanhoe struck the shield of Brian de Bois-Guilbert with the sharp end of his spear until it rang again, which showed that their enmity or feud was of such a character that it could not be settled but by the death of one or the other. The dents upon the shield were marks of honour.

"Each dent upon his battered shield,
Was token of a foughten field."

The shields of the warriors of those days were fashioned by skilful armourers who made them strong and tough, capable of resisting the heavy strokes of the sword and axe; many of them being curiously ornamented, painted, and inlaid with various metals and enamels.

"Knights, with long retinue of their squires,
In gaudy liveries march, and quaint attires;
One laced the helm, another held the lance,
A third the shining buckler did advance.
The courser paw'd the ground with restless feet,
And snorting foamed and champed the golden bit.
The smiths and armourers on palfreys ride—
Files in their hands and hammers at their side,
And nails for loosen'd spears, and thongs for shields provide.
The yeomen guard the sheets in seemly bands,
And clowns come crowding on with cudgels in their hands."

Palamon and Arcite.

Old Chaucer says—

"There see men who can just and ride,
There shines shaftes upon shieldes thicke."

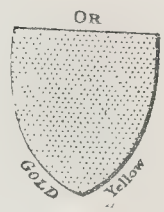
In our illustrations of the various shapes of shields, that marked No. 1 is the oldest of which we have record. It is sometimes called the Norman shield, but this is a disputed point, as others hold that the Romans were the originators of this shape. No. 2 is slightly round at top by two curves. Nos. 3 and 4 are also slightly round in form at bottom of shield, but these are more modern. No. 5, the half-moon buckler, is a very ancient form of shield. Its lunar shape was intended to give more extensive action to the right hand; and its name (as well as the word *balteus*, a belt,) was derived from the hide of beasts, with which it was generally covered. The convexity of this shape of buckler, more particularly the centre, was sometimes armed with a knob or sharp point. This convex form was adopted in order to give a glancing direction to the darts or arrows, and to strengthen the whole against the repeated hacking of sword strokes or the spear point. Such was, according to Pliny, the form of the shield worn by Pyrrhus at the siege of Troy, when the venerable Priam threw with unavailing strength a heavy spear against him.

No. 6 is a modern representation of the convex shield. Nos. 7 and 8 are mere variations of the square target; and the lozenge, No. 9, is exclusively used for the armorial bearings or ensigns of maids, spinsters, and widows.

TINCTURES.

It has been before observed that shields, targets, and bucklers were anciently made of the hides of animals, and generally covered with plates of a metalline substance, when not made entirely of metal. Livy, the historian, mentions the gold and silver shields of the Samnites; but the less expensive metals, as brass and copper, iron and steel, which, by the analogy of their natural colour, or by being silvered or gilt, were less costly, but useful representations of the more precious metals. The heraldic nomenclature originally belonged to, and, in fact, that used in the present day is derived from, the French language as it was written in the 15th, 16th, and 17th centuries. According to this ancient custom gold is described as Or, and silver as Argent, in describing coats of arms; and in painting, yellow is often substituted for gold and white for silver, when the metals themselves cannot be used for the purpose. But in engraving, the various tinctures or colours are represented by minute dots for Or (gold), and plain white for Argent (silver), and by lines in different directions for the other tinctures. We give eight shields as illustrations—No. 1, covered with small dots, being Or; No. 2, Argent; No. 3, Azure, has the lines drawn horizontally across the shield, representing blue. The azure canopy of heaven, from its beauty and purity, may have induced the use of the colour. It still retains its French name *azure* in heraldry, and is usually painted with Prussian blue, ultramarine blue, or blue smalts (*i.e.*, blue glass pounded). No. 4, Vert (green) is designated by lines drawn diagonally from

No. 1.



No. 2.



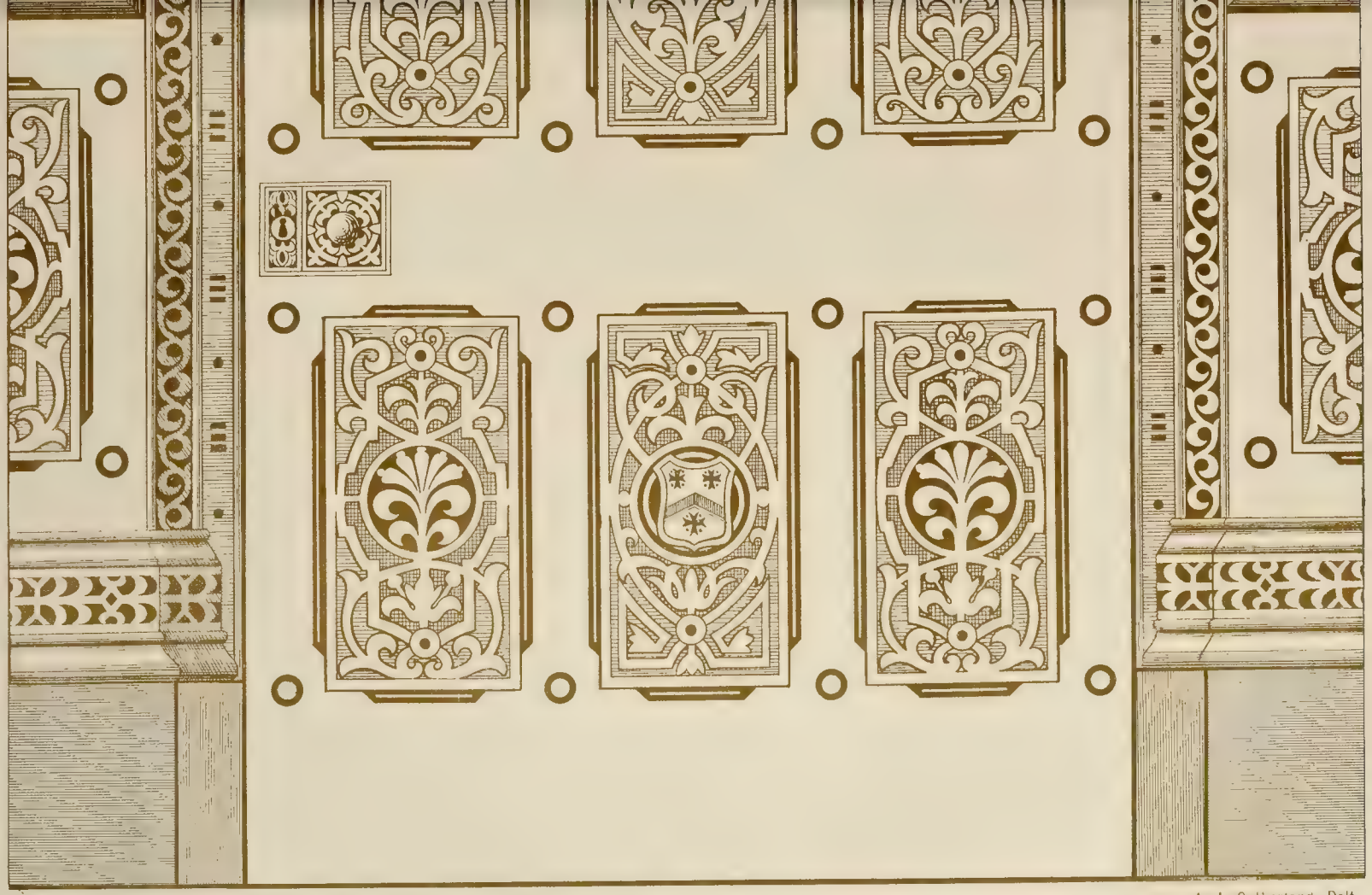
No. 3.



No. 4.







W. G. Sutherland, Invt.

A. A. Sutherland, Delt.

DESIGN FOR DININGROOM DOOR.

in imitation inlay, or in color.

Specially designed for this Journal.

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Photo-Litho. by H. Koemptz, Chromo Litho., Fountain Street, Manchester.

the dexter (left hand) summit of the shield down to the sinister (right hand) base. No. 5, Gules—this colour ought by the strict laws of heraldry to have followed Argent, but for convenience of description we have placed it here. Gules (red) is represented by vertical or perpendicular lines from top to bottom of shield.

No. 5.



Red

Proud of his power in having imbrued his laurels with the blood of his enemy, or having encountered and slain the lion of the forests, or the tiger of the desert, the knight naturally adopted first the *red colours*, not only in allusion to his achievements but also for its superior brightness; hence the Tyrian scarlet, in the shape of a cross, flamed on the silver shields and banners of the Crusaders. The word Gules is considered to have derived its name from the crimson mouths of animals, hence in ancient lore it is often called mouth colour. Vermilion or cinnabar is used in painting.

(To be continued.)

OUR ILLUSTRATIONS.

WE give this month a double-page design for a dining-room or other room door, a single page sheet of borders, and two stencil designs for the decoration of door panels.

1. The double-page design consists of a six-panel door and architrave, based on the Tudor or Elizabethan style of decoration. Structurally the panels shew chamfered edges and stops, and the dado, which is made out in wood, causes the door to be slightly recessed, a peculiar feature being, that the moulding of the architrave returns on to the top of dado. The ornamentation is in the same style, and, of course, may be used for other purposes. The three top panels are formed on exactly the same geometrical lines, the only difference being that the pointed oval of the centre panels is broken up in the two outside ones by short vertical and horizontal lines. The monogram, J.D.A., and shields, may be varied according to circumstances. This class of ornament will lend itself admirably to being executed in stained or inlaid wood. At the proper place we shall give a description of the whole process of staining, graining, and inlaying on painted wood, on pitch-pine and other white woods. The design would also look well painted in colour, and the ornament relieved by a light line on all parts on which the light would strike if the ornament were in slight relief, and a dark line on those parts which would be in shadow. The effect may be further improved if a transparent line of shadow is put against the previous shade line, and if these are all done in different shades of the same colour as the ground a very pleasing effect may be produced.

2. The sheet of borders is designed and drawn by Mr. George Goff, of Nottingham. They are of good design and admirably drawn. As will at once be perceived, these borders are adapted for using on textile fabrics, as well as for the purpose of surface decorations. The style is somewhat unusual for the latter, and if used for stencilling would have to be outlined in order to give the full delineation of the pattern. Nos. 3 and 4 are also excellent in design, and are better adapted for stencil decoration than 1 and 2. In using any of these designs for stencil work the dark part should be cut away, ties being left to hold the pattern together. The connecting and defining lines should then be put in with the pencil and the same colour as that of the stencil; or, when the back grounds are stencilled, the whole of the pattern may be outlined with a darker or lighter colour as required. Those parts shewn as tints may be put in another colour by using a semi-transparent colour or tint mixed as follows:—Dissolve a little white wax in turpentine, add a little lake, burnt sienna, blue, or any other staining colour from the tube, just as much of either as will make the desired tint; when diluted or thinned with turpentine, but little stain is required. With this brush over the parts required, laying it level and uniform, and thus any tint or shade of colour may be got, and any number. This mixture will answer as well for distemper as oil paint. Small or large portions of the design may thus be coloured.

3. The two door panel designs are examples of a simple and graceful style of decoration suitable for ordinary doors. They may be stencilled either in one tint or in three or four. The lines of one tint, the vases of another, the leaves another, and so on. A very good effect may be got by stencilling in one colour and then outlining in another. The designs also look well gilt and outlined with black or dark brown on almost any ground colour, and by pricking the designs and pouncing them on to the work they may be laid in with the pencil and then raised and shaded in slight relief; carefully executed, they will look well done in any style. In our September number we shall give a coloured illustration of the decoration of a Billiard-room, in the highest style of chromo-lithography, fully equal to the example of drawing-room decoration issued with our June number. By the aid of these designs in coloured decoration we hope to spread a knowledge of harmonious colouring by practical examples, which cannot be done by mere words alone. Word painting, however true and clear, cannot convey to the mind the effect of colour so vividly as an actual example, but if word painting is supplemented by practical examples mistakes are less liable to be made and more good done.

ON THE CURE OF DAMP WALLS, AND THE DRYING OF NEW PLASTER.

CHAPTER IV.

WE now come to the consideration of the various other methods of curing damp walls by the application of surface coatings. Of these there are very many, some of which are utterly useless, others fairly efficient, and a few which answer the purpose required thoroughly. We do not propose to go here into the large and important question of the chemistry of building materials. We know that different clays and sands have chemical properties of their own which, when allied or mixed with lime and water, produce certain combinations which absorb and attract moisture from the atmosphere, and thus cause damp in walls.

Of course it would be well if all these various materials could be analysed and thoroughly tested before being used in building. But apart from the consideration of the cost of such testing, we may safely, in ninety-nine cases out of every hundred, relegate the question to the region of abstract theory, simply because that, with the exception of important public and private buildings, the circumstances of the case preclude those concerned from going to the trouble and expense of such an inquiry.

We are dealing here with the cure of walls that are already damp. It has been the practice with painters and paperhangers to cover damp walls with a brown paper coated with pitch (pitch paper), laminated lead (sheet lead rolled very thin) fastened to the wall with copper nails, thin sheet gutta-percha, and other such appliances to prevent the damp appearing on the surface of the wall paper. But all these are mere makeshifts. They do not go to the root of the evil, neither do they stop or cure it, but only serve to intensify its effects. The inevitable result of long continuous damp totally destroys the tenacity of the plaster, and changes it into a crumbling mass, into which it is folly to drive a nail, as it is not possible for it to hold fast. Now, pitch paper and kindred substances must be fastened to the wall by copper nails, which in a short time get loose, and the paper begins to bag out or rise into long blisters, becoming unsightly and utterly useless. Boiling pitch is sometimes used, upon which strong brown paper is fastened. Another plan is to nail battens upon the wall, and then stretch canvas upon them, and paper upon that. This is certainly a step in advance of those methods we have above enumerated, but necessitates the battening of the whole wall in which the damp shows itself. If only done as far as the damp extends, it makes a bad and unsightly finish. If the damp arises from the ground, it will be evident at once that none of these contrivances can possibly effect a cure. They simply confine the wet for a time, but it will ultimately find its way out, and even if it does not, the atmosphere of the room will not only smell but be foul. In these cases there is no possible remedy except by preventing the damp from arising. Now, this may be done effectually by inserting a damp-proof course into the walls of old buildings. It is a simple operation, and may be done by any ordinary bricksetter or mason. Two or three bricks may be taken out of any wall, on the same line, and impenetrable, damp-proof slabs inserted without the slightest danger of injury to the wall. These impervious bricks, slates, &c., should in all cases be wider than the brickwork, especially on that side which is plastered, so that the plaster can rest upon them, thus leaving no channel up which the damp could creep. If this were done, it would not be possible for the damp to rise. The damp in the wall above the inserted course would soon dry out, not being fed from the ground, and thus an effectual cure would be accomplished at comparatively a nominal cost. These damp-proof bricks, &c., are made by many firms, amongst whom we may mention Messrs. Doulton & Co., Lambeth Pottery, London. Those they manufacture are made of vitreous stoneware, are pierced for ventilation, and made with tongue and groove joints which effectually prevent the damp passing. Messrs. Horn & Black, also of London, make a description of damp-proof course which, although metallic, is pliable, so that should settlement take place, they do not break but bend. This is in some respects an advantage, as most buildings do settle in some degree. This manufacture is said to be thoroughly impervious to wet, does not corrode, and is unaffected by any acids, and so effectually prevents damp affecting the wall. Hollow bricks and vitrified blue bricks are also used. Messrs. Bailey & Co., of Dwight's Old Pottery, Fulham, London, S.W., manufacture an excellent damp-proof brick for the purpose. Of course there are many other firms who supply these goods.

Solutions for indurating and preserving stonework have been experimented with, for a long series of years, with varying success. Notably, the Houses of Parliament have been used as a suitable building for experimenting upon. First one, and then another, have tried their hands upon it (some of them being truly 'prentice hands), with varying success. Amongst the oldest and most successful of these solutions are Ransome's Patents. They are termed imperishable solutions, and are used very largely not only for preserving stone but for curing damp walls. There can be no doubt, we think, that if a soft stone or brick is saturated with a chemical solution which will unite with the material of the brick or stone, and supply the special chemical constituents required in order to

harden and convert it into a new and durable substance, it will be unaffected by damp or the deleterious gases prevalent in towns and large cities. It is by such means that nature works out her ends in that vast laboratory in which she is constantly building up and reconstructing, disintegrating and dissolving all things and all materials which go to form this earth of ours and all upon it, animate and inanimate.

Ransome's solutions have been tried, in all parts of the world, upon both crumbling brick and stone in all states of decay, and have arrested decomposition, and so hardened them and changed their nature that they will resist the utmost efforts of Time and his destroying agencies for a great number of years. It will be at once apparent that if this composition will do this, it will also effectually resist the penetration of damp through an outside wall, and consequently may be used with advantage on all walls that are damp by reason of the rain beating upon them.

(To be continued.)

ART NOTES.

The Art Furnishers' Alliance Company's new premises in Bond Street, are well worth a visit, and though it requires considerable personal courage to face the "Æsthetes" in "greenery yallery" robes, who show you the novelties and explain the principles of "Scientific Art," yet a nearer acquaintance robs them of much of their terrors, and invests them with the common-place again.

Dr. Dresser, who is the Art Director of the concern, is here seen in his pristine, or, to be correct, prismatic splendour. However much one may differ with the Doctor as to the interpretation of beauty of form, no one can deny him the possession of great power as a colourist, and he has in the rooms of the new establishment given full play to his fancy and genius in this respect.

The double ceiling in the Grecian room is a novel and successful contrivance to combine the demands of good ventilation and decoration. The suggestion for ventilation is admirable, but the decoration, while very excellent, is prohibitive in its cost. It is also an open question how far so gorgeous a ceiling decoration is permissible in an every-day house. For a state apartment we could desire nothing better, but for domestic purposes, its richness demands attention that should be bestowed on other objects.

Some of the furniture, and notably that which is inspired by the Doctor, is (to put it mildly), unique. Strength is always admirable, and simplicity is a desirable feature in furniture, as well as in many other things. But strength is very apt to merge into clumsiness, and simplicity into plainness, under the hands of the Art Director, and some of the objects on view would show to advantage if shorn of half their bulk of material.

The No. IX. Gallery at the Royal Academy has much in it of interest to the student of decorative art, the *chef d'œuvre* of the entire room, being (1012) a "Design for an Inlaid Door of Ivory, Greywood, and Ebony, with painted Medallions, illustrating Music," by G. A. Storey, A.R.A. The conception and working out of the idea is excellent, down to the smallest detail. Messrs. John G. Crace and Son exhibit a coloured drawing (1059) of the decorations they have recently carried out at the Mercers' Hall, off Cheapside, which is worthy the reputation of this firm.

Mr. Owen W. Davis is an artist whose work is familiar to the decorative world, and his contribution (1068) a "Design for a Dining-Room" conceived in a free Renaissance spirit, is an excellent example of a style of decoration the artist is particularly happy in, and one with which he is more especially identified.

Mr. Alfred Waterhouse, A.R.A., sends a drawing (1084) of the Central Institution of the City and Guilds of London Institute for the Advancement of Technical Education, which is marked by the breadth and dignity of treatment that we always find in Mr. Waterhouse's work. No. 1090, "Competitive Design for Decoration of United Presbyterian Hall," by Thomas Hall, junr., is worth inspection, as is also (1123) a "Design for an Iron Screen," by Walter Lane. No. 1129, a "Design for Painted Window in St. Paul's Cathedral, commemorative of the recovery of H.R.H. the Prince of Wales," by Mr. George Taylor, and Wm. Jas. Griffiths, is carefully thought out and well drawn and coloured.

Of the pictures this year much has been, and much more could be, written, but as they are a little outside our province, we will content ourselves with rendering them the homage they deserve. Such pictures as "Sappho," by Alma Tadema, R.A.; "Diana, or Christ," by Edwin Long, R.A.; "Idyll," by the President; and the Portrait of the latter by G. F. Watts, R.A., will remain splendid monuments to the genius of the English school, and the wide capacity of its aims.

Surely the height of impertinence is reached when an anonymous writer in a magazine of some pretentions, speaks of Mr. Frith, R.A., Mr. Millais, R.A., and Mr. Marcus Stone, A.R.A. (in connection with Messrs. Faulkner and Hildeshiemer's Prize Scheme), as *all very respectable gentlemen.* It is only due to the writer in question that posterity should know who he is, that it may, should opportunity serve, mark its sense of indebtedness to him for this guaranteeing of names "that are familiar as household words." Possibly, contemporary gratitude may be pining to offer a tribute to its unknown benefactor.

To those who cannot personally get to see the pictures at the French Salon, we would suggest as the next best thing to do, that they purchase the illustrated catalogue (4½ francs). It is the cheapest investment of the kind we know. Some of the drawings are exquisite little bits.

REVIEWS.

The Architecture, Decoration, and Furniture of the Brothers Adams. B. T. Batsford, 52, High Holborn, W.C.

In issuing this work, Mr. Batsford has presented to the Art-loving portion of the community, in a popular form, a selection of the choicest works of the two gifted men, who, at the end of the last and beginning of the present century, created a style. It is not given to many men to do this, and it is presumptive evidence of much inherent merit, that so strong an interest is again reviving in this special development of ornamental art. The original work is cumbersome and heavy, and contains much that is uninteresting. The twenty-six plates in the volume issued by Mr. Batsford, are a selection of the most useful and interesting of all the designs. They are thoroughly representative of the style, and include both structural and flat decorations. Some of the designs rival in elegance and grace the best Pompeian work, a style which is evidently the basis of all that they did. In publishing this work, Mr. Batsford is deserving of the thanks of the decorative world, and we trust the response will be such as to adequately recoup him for the outlay. The work is Folio (17 × 13½) in size, half-bound, and is published at 25s.

School of Painting for the Imitation of Woods and Marbles, as Taught and Practised by A. R. and P. Van de Burg, Directors of the Rotterdam Painting Institution. Crosby, Lockwood & Co., Stationers' Hall Court, London, E.C.

We have been favoured with a copy of a work on the imitation of woods and marbles—advertised in our columns—the production of a Dutch firm at Rotterdam. The book contains six finished patterns of woods and seven of marbles, each of which is accompanied by another sheet showing the graining in process. There are also six plates giving the form of the tools used and the manner of holding them in the hand to produce the effects required, with letterpress instructions. The list of woods embraces: walnut, ash, maple, mahogany, juniper, and oak. Of these the walnut, ash, mahogany, and juniper are admirable specimens of lithography, and excellent imitations of the woods named. The maple and oak might be better represented. The list of marbles comprise: St. Remi, breeche violette, white vein, sienna, vert de mer, or Egyptian green, and waulsort marble. All these, with the exception of the white vein, are capital imitations of the marbles named, and are much the best examples we have seen produced by chromo-lithography. The size of the work is 18 × 12, and the size of patterns 16 × 8½ inches. It is published by Messrs. Crosby, Lockwood & Co., Stationers' Hall Court, London.

ON THE MATERIALS AND TOOLS USED BY THE HOUSE PAINTER AND DECORATOR: THEIR PROPERTIES, COMPARATIVE VALUE, AND USE IN THE TRADE.

ALBISSIMA.

"Whitest of the White."

THE somewhat singular name that heads this article is that given to a new manufacture that seriously threatens to supersede white lead as a white pigment, and as a base for coloured paints. It is the outcome of many experiments made to meet the desire for a non-poisonous paint. Zinc whites, as ordinarily manufactured, have got into disrepute with the trade owing to their lack of covering power or body.

Before writing this, or commending Albissima to the trade, we ordered a cask of it and tested it both on ordinary and better class work, and are thus enabled conscientiously to add our testimony to that of many others as to the *bona fides* of this new manufacture.

It is non-poisonous, of excellent covering power, very pure in colour, ground extremely fine, and easy of manipulation—five qualifications which should obtain it an entrée to every good painter's shop in the kingdom. The proprietors are the Albissima Paint Company, Limited, 34, Lime-street, London, E.C.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

BY THE EDITOR.

CHAPTER IX.

MAPLE.

IN the graining of maple wood, as, in fact, in all graining, cleanliness is a *sine quâ non* in order to produce good work; for as we have before said, if the work is of inferior quality but clean, it will be more pleasing, and give more real satisfaction, than will the best imitation if it is slovenly and dirtily done. The difference is just as much as between a pretty face dirty and the same face clean. Dirty work is an evidence of careless habits. A grainer who does not pay attention to these matters will not pay proper attention to his tools, but will neglect them, leave them unwashed and dirty, and so spoil them. A man who does his work dirtily will not be over particular with his person, as these kind of habits grow upon one. The tools required for graining maple are, first, a 4in. hoghair mottler, a 2in., and a 1in. These ought to be what are called thick mottlers. A thin mottler, short and stiff in the hair, about 1in. wide; three sable-hair pencil overgrainers, 3in., 2in., and 1in. wide respectively; a 3in. or 3½in. badger-hair softener, a sable pencil, wash or chamois leather, and sponge. The ground colour for graining maple should be nearly white—the best ground being a colour just turned from the white with a little vermilion, and with or without a touch of yellow ochre. It is of the utmost importance that the ground should be got up smooth and level, without any marks of the brush showing. Except this be so the work cannot look well at the finish. The colours to be used are next to be decided upon. These should be ground exceedingly fine. Many grainers use Vandyke brown alone for imitating maple, or Vandyke brown and a little burnt sienna. But we have found the best colour to be a mixture of burnt sienna and drop black, ground in water, and used with a weak solution of common ale or beer. We prefer to use these colours because we can regulate the tone of the maple, and vary the shade, making it either warm or cool as may be desirable. This is a very valuable quality, as by using more or less black we are enabled to form a contrast between the stiles and rails of a door, and thus get variety, making each look better for the contrast. It is always better to grain the work in cool tones, because when it is varnished the varnish itself gives it a yellow tinge, and, of course, time constantly adds to this yellowness, all varnishes becoming darker by exposure and age; consequently, if we grain with a yellow colour, as many grainers do, the work becomes in time very far removed from the real colour of maple wood. We have been in the habit of graining this wood both in oil and distemper. We shall describe the distemper process first, as it is that which is universally used. The last coat of paint to grain in distemper upon should always be gloss colour. Many grainers, of course, prefer dead colour, simply because it does not ciss and does not require damping down. But it is unwise, as we never can make a clean job on dead colour; but clean work can always be ensured on a gloss colour if proper care is used. The work must first be damped down with water in which a little finely-powdered whiting has been mixed; this serves, in the most effectual manner, to prevent the graining colours cissing—but there should only be sufficient whiting in it to effect the purpose, if there be too much it will make the colour rough. We now take a sash tool and a thin wash of the colour mixed with weak beer, and brush over the panels with this, putting on a slightly darker tint on the sides of the panel where the strongest and largest mottle would be in the real wood. A touch of the darker colour may be put in one or two spots in the centre of the panel. The colour may be laid even by using the 4in. mottler for spreading it, and the badger-hair softener

to assist in laying it level and blending the one into the other. We next take the damp wash leather in the left hand, and the large hoghair mottler in the right, first dipping it in clean water and then pressing it out again. We then hold the mottler at an angle, in a direction from the side to the centre of the panel, and pressing slightly the extreme ends of the bristles against the panel, take off portions of the colour in slanting marks. This, if done properly, will take off clean and clear strips of colour in the exact direction in which the tool is held. This is repeated from top to bottom of the panel irregularly, that is, leaving unequal patches of colour. By pressing the ends of the fingers into the bristles we produce thereby an irregular cutting action and avoid the straight cuts. We then, with a small one, break the large mottle into the centre of the panel with a smaller mottle, and slightly soften with the badger. When this is done we use the large mottler, and go over the previous mottle again, but this time in the opposite direction. This cuts up and breaks the previous mottle into exactly the same form as is seen in the real wood. We now take the narrow, thin stiff mottler, dip it into water, and with one end or corner of it cut out some small pieces or bites of colour on the top edge of the dark shade of the mottle. By this action we form the reflecting light which appears on the upper side of each bird's-eye or knot, and which gives to the wood that silky softness so remarkable in soft woods. Of course this will all have to be done quickly, or else it will get too dry. We have now to put in the bird's-eyes or knots, and these fall invariably at the point of the bright light we spoke of last. These are put in in various ways. Sometimes a bit of sponge in the end of a quill is used, and there are what are called maple dotters sold by all the grainers' tool makers. Sometimes the ends of the fingers are used in common work. Another tool we have used for this purpose is made with a strip of wash leather tied round the end of a small pencil stick. This dipped into colour and then on to the work leaves a round or partially round ring as the workman may desire. But for good work we prefer to use a short pencil to put the eyes in with, as we get rid of any formality, and can always vary the shape and size of the eyes as in nature. These knots or eyes in maple are of a reddish hue, and are best imitated by using burnt sienna, not too dark—a medium shade answers the purpose best. If we examine a piece of maple wood we shall see that each eye or knot is formed of a bright light with a shadow on both sides, or, to put it plainer, it is a dark shade of a semi-circular form with a reflective light running through the middle of it. Now this is exactly what the grainer has to produce to make a good imitation, and it may be done by first putting in the knot or eye with the dark colour, and while it is wet taking a piece of thin wash leather, wet with water, upon the end of a pointed piece of wood, and with this wipe out the bright light of the eye, softening it a little with the badger. All this cannot, of course, be done while the first colour is wet, because it could not be done in the time, but by washing out the mottler quite clean, and then wetting the panel carefully with clean water, both the eyes and lights across them can be put in and worked the same as in the first process. Not only this, but the reflective lights on the tops of the mottle can be heightened and pointed into the knots or eyes by using a damp wash-leather to wipe them out with. Much after-work can be done by this method, care being taken while wetting it that we do not work up the colour underneath.

We now come to the overgraining. The overgrain of maple is very beautiful both in form and colour. Each plank has a centre heart or heart grain, which invariably runs upon a comparatively plain part in which there are not near so many eyes as at the sides of it, but whether in the centre or on the sides it runs into and curls round each individual eye. This overgrain is also of a reddish tint, and may be done with burnt sienna and a slight touch of purple lake added to it, care being taken that it is not too strong in colour. It should only be just strong enough to be seen clearly as a portion of the work without being obtrusive; if too strong it looks vulgar. With a sable hair pencil and the overgraining colour we commence in the centre of the panel and work the overgrain round, in, and about one of the principal group of birds' eyes, gradually extending it from one group of eyes to another, and round single eyes, until we have filled up the centre from top to bottom. We then take the one inch pencil overgrain and draw it down the panel, going in and out to correspond with the outline of the heart overgrain put in previously; the stiles and rails of the door may be overgrained with the three inch. If the foregoing process is strictly followed and well practised, good work will be sure to result. But in order to accomplish this, there are two or three points we have to insist upon. The first and most important is cleanliness in working. The panels should be first finished, then the stiles and rails, but in doing the latter great care is requisite to make the joints sharp and clear. We commence first with the middle stiles of the door. When these are dry we place a straight edge upon the joint and wipe off all the colour upon the cross rails with the wash-leather. We then grain the rails, taking care at each joint to make a difference in the depth of colour, the one to contrast with the other. The end of the stile up to the joint dark, and the part of the rail which butts up against it light. This is pretty much as it would be in the real wood. This contrast may be made by a judicious use of a cold in contrast with a warm colour. We now

grain the outside stiles, first wiping off the joints of rails as before. We should have noted that it is best to overgrain each rail and stile before proceeding with the next rail or stile, and thus avoid spoiling the joints by running over them, as we must do if we leave the overgraining until both stiles and rails are mottled. Panels and stiles being now done we must clear off the colour which will of necessity have got upon the mouldings and into the quirks. This is an important point, as nothing spoils a light wood door more than dirty mouldings. When they are thoroughly clean we may proceed to grain them, keeping them light in tone, and, above all, clean and clear in the mottling, and they may, with the exercise of due care, be overgrained without touching either the panels or stiles. We may point out that on good work the best pale carriage varnish only should be used, which, if really good, will not change the colour of the work in any perceptible degree; but if, on the contrary, a strong or deep-coloured varnish, such as oak or mahogany varnish is used, it is apt to be laid on shady and discolour the work very much indeed.

(To be continued.)

OUR MANUFACTURING INDUSTRIES.

Messrs. R. GORRINGE & CO.

IT is a somewhat remarkable comment on the outcry that has of late years been raised against "poisonous paints," that some of the oldest firms in the country are to be found amongst varnish, paint, and colour manufacturers.

We had occasion in our last issue to draw attention to a firm of house decorators who could point to a continuity of business extending over one hundred and fifty years, and to three members of the house (one of whom is still living) in whom the Psalmist's term of life was long exceeded: and we can name at least half-a-dozen firms of varnish and paint makers who have been established over a hundred years. With such facts as these before it, the Trade may "take heart of grace," and comfort itself with the assurance that there is no immediate danger of it being poisoned off the face of the earth.

We have never joined in the hue and cry that, at different times and from various motives, has been raised against good, honest paints; and from a long personal experience and observation, we are disposed to think that paint poisoning is largely a personal idiosyncracy, in the same way and on the same principle that in food what to A is agreeable, wholesome, and nutritious, to B is the most deadly agent he can introduce into his system. We have known individuals to whom the slightest smell of paint was rank poison, and others who could work in and amongst it, not merely without detriment to health, but with an augmentation of it; and in our visit to Messrs. Gorringe's works, the intelligent and obliging manager assured us that he had been amongst it as man and boy for the last thirty-five years without any ill effect, and he certainly betrayed no evidence of decaying powers, physical or mental.

One's ideas of Islington are inseparably bound up with that celebrated merchant of the Cheap, yclept John Gilpin, and his equally famous ride, but, alas! a change has come over the spirit of the scene since that day. No longer do the hedgerows yield their fragrant perfume of honeysuckle and sweetbriar; no more do the fields wave their blades of grass or shocks of corn in sweet obeisance to the canopy of heaven; for ever has gone the trill of the lark as it soars heavenwards, pouring out in the fulness of its gratitude its matin song; not even the bluff, honest "pike-man" is left us—all, all have been swept ruthlessly away in the rapid accretion of houses, streets, and workshops now known as London, N.

It is in this densely-populated district, in large and commodious premises erected for the purpose, that Messrs. Gorringe carry on their business, which was established in 1765, twenty years before Cowper immortalised Gilpin and "merrie Islington."

There can be no greater tribute to the character of a firm than its age, for such an announcement as "established over a hundred years" invariably means a hundred years of fair dealing between manufacturer and consumer, a hundred years supplying of good materials at fair prices, and is an exemplification of the truth of the wise old Hebrew king's saying, "A good name is rather to be chosen than great riches." The firm was originally started under the name of Messrs. Barnes, and after the lapse of forty years passed into the hands of the present proprietors.

A visit to a varnish and colour manufactory is a kind of geography object lesson, and is a slight reflex of the extended ramifications of our commercial relations. All the countries of the world are explored and impressed into our service, and contribute to our requirements. Italy sends ochres and siennas; Vesuvius supplies us with pumice stone; Germany sends ultramarine blues; Turkey, sponges and umbers; Russia sends us glues, and more distant parts of the earth furnish us with many other necessaries of a painter's shop.

The extent and capacity of Messrs. Gorringe's premises enable them to keep a large and varied stock, so as to meet the demands made on them promptly. An important part of their business is the brush department—a branch of trade to which they have given special attention, their flat chiselled-edged varnish brush being a great advance on the old round brush.

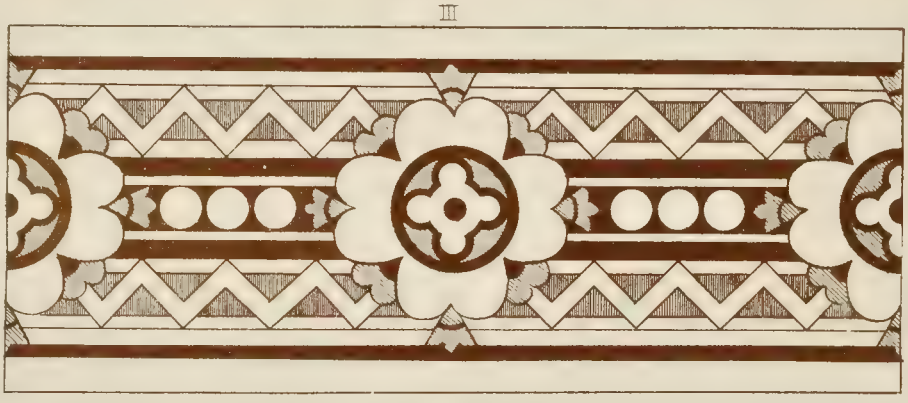
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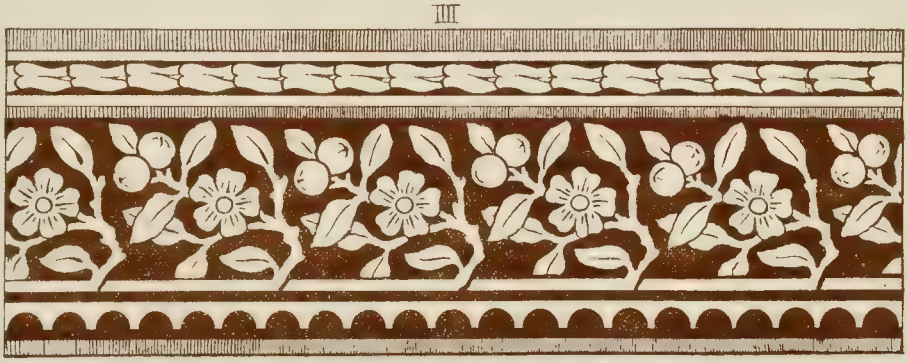
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Geo. Goff, Invt. and Delt., Nottingham.

Photo-Lith. by W. Kleeretz, Fountain Street, Manchester

DADO BORDERS. Specially designed for this Journal.



Among their other specialities is a small bottle, sold retail at sixpence, containing sufficient Brunswick black to paint several grates with, and having a small wire-bound brush attached to it; this price, low as it is, is subject to a trade discount.

Ascending to the top floor, which is divided into four departments, we saw large stocks of Turkey umbers, siennas, Italian ochre, Vandyke brown, and pumice-stone, rejoicing in all their native purity, just as they are delivered from the ship. These colours, before they reach the form familiar to painters, have to go through many processes—first, they are slowly dried, then ground very fine into a powder, strained through a close sieve, well levigated or washed, dried in cakes, and afterwards ground in oil through the machines. Here, too, were to be found the ultramarine blues, drop black, white sugar-of-lead, and Venetian red.

The second floor, divided into a like number of departments, is devoted to the less bulky but more valuable articles of manufacture, such as vermilion, lakes, the better qualities of blue, Indian red, bichromate and biprussiate of potass, Russian and Scotch glues, red lead, litharge, &c.; and in a room to themselves are stored the brushes that form so important a section of Messrs. Gorringe & Co.'s trade.

Descending to the ground floor, we reach the "wet" warehouse, which is the storehouse of the finished colours (kept in vast vats and cisterns), such as greens, reds, ochres, umbers, siennas, and colours in oil and water, for which there is always a large demand. Adjoining this is the varnish room where, in huge tanks of great capacity, are stored at times as many as from forty to fifty thousand gallons at once. The long connection Messrs. Gorringe have established with some of the principal coach painters in the metropolis, is a guarantee, if any were needed, that the varnishes they turn out are of good quality and body. At right angles with the varnish room is a long drying colour shed where the colour is dried after being levigated, prior to its being ground in oil, while in the centre of the yard is placed the stove in which the copperas is calcined on beds of chalk heated underneath by hot air flues.

We have all read and seen representations of that mythical figure, the phœnix, rising from his ashes endowed with new life and being, and in a parallel manner, but with another element, do weathered old hulks of varnish bottles, under the tender attentions of strong caustic soda and a large copper, come out of the ordeal seven times purified and ready for use again. Near to the stove is the grinding room, containing sixteen large machines worked by steam power. Each of these machines is a duplicate of the other, only with finer adjustments for the different requirements of the materials to be ground. In a kind of wash-tub, and working on a vertical shaft, are two large stones heavily weighted. These stones, the under surfaces of which are grooved, revolve round the shaft on the top of a base stone, which causes the colour to be ground between the upper and lower surfaces. They are kept revolving hour after hour until the colour is of the requisite fineness.

Crossing the yard, we mount some steps and reach the room where the ready-mixed paints are made up in tins. This is a comparatively recent development of the paint selling trade, and one that seems to grow year by year. It is clean and compact for storing, and can be kept in a shop without any detriment to the general appearance of an establishment. Messrs. Gorringe are just now sending off a large consignment of these to the Cape in the execution of a good order.

Near to this room is the "tube" room where the colours ground extra fine are placed in the usual collapsible tubes, and sent out for special fine work. This is a great advantage to a decorator, as it ensures the colours he desires fine, being so; and that at a more reasonable rate than the old artists' colourmen charged.

This little sketch of a visit to the works of an old-established firm will show to many, who otherwise would never know, how complicated are the processes, and how many hands and methods are employed, before the articles are ready for their use. We are so accustomed now-a-days to have everything we want brought to hand just as we require it, that how it is brought there, the agencies employed, and the resources put into motion to accomplish it, never enter our heads.

"The good old days" never knew the advantages we possess over them in this respect. The facilities of transport are so great and so accessible that distant climes are brought to our very doors, and, thanks to the enterprising industry of our manufacturers, we have only to ask to have. It is this that has placed us in the van of the nations, and it must be this that alone will keep us there.

DRAFT OF SPECIFICATION FOR PAINTING AND DECORATING A MIDDLE-CLASS HOUSE.

In our last we endeavoured to show what a specification should and should not be. We sketch a form of specification made out so as to ensure that accuracy and definiteness of detail so necessary to secure a thoroughly satisfactory and safe document or deed of agreement between two contracting parties. And as the detail of the painting and decoration required in a new house will of necessity be very different in many respects to one required for an old house, we shall give two specifications; the first being for a new building, which we will suppose is perfectly dry and ready for finishing.

As these articles are written for the information and in the interest of the great body of our subscribers we will take an ordinary middle-class house for our illustration.

In order to save a repetition of words, and to avoid prolixity, we first give an explanation in brief of what is referred to in the specification, viz.:—

Ceilings and walls rubbed down, stopped, and faced up. This means that the plaster-work is to be gone over with a large piece of pumice-stone, or sand paper, on a piece of cork or wood, in order to take off any lumps or rough places left by the plasterer.

Stopping and facing up means that all holes and cracks are to be pointed or filled up with plaster of paris and lime putty, and when dry rubbed down, so as to ensure its being level with the surface of the wall.

The rubbing down, stopping, and facing up, when applied to woodwork, means exactly the same thing, except, instead of using lime putty and plaster of paris, to use common putty or hard stopping to fill up and face up the holes, cracks, or indentations.

SPECIFICATION & ESTIMATE of cost of Works to be done at Goodwork House, situate in the Parish of Fairprice, for James Haveitwelldone, Esq.

	ATTICS.
Ceiling and Walls.	The ceiling and walls of attics to have all cracks or holes in plaster stopped and pointed with plaster of paris and lime putty. Ceilings prepared and whitened with best washed whiting and size.
Walls.	Walls papered with papers at 9d. per piece of twelve yards.
Woodwork.	Woodwork to be stopped, prepared, and painted with two coats of best oil paint.
	BEDROOMS ON FIRST FLOOR.
Ceilings.	Ceilings and walls to be rubbed down, stopped, and faced up. Ceilings and cornices to be prepared and whitened (if cornices picked in tints state same).
Walls.	Walls prepared and papered with paper at 1s. 6d. per piece.
Woodwork.	Woodwork to be rubbed down, stopped, and painted with three coats of oil paint, finished in dead or flat colour in tints to match the paper.
	BEST BED AND DRESSING ROOM.
	Ceilings and walls rubbed down, stopped, and faced up.
Tinting.	Flat of ceiling to be prepared and distempered in a suitable tint. Cornice to be picked out in approved tints of colour.
Walls.	Walls to be prepared and lined with white lining paper, 9d. per piece, and papered with an approved pattern paper, at 3s. 6d. per piece (English).
Woodwork.	The woodwork to be carefully rubbed down, stopped, faced up, and painted with three coats of best oil paint, and finished flatting or dead colour in tints to suit the paper.
Gilding.	One member of doors, architraves, and window linings to be gilt with best English leaf gold.
	BATH-ROOM AND WATER-CLOSET.
Ceilings and Walls.	Ceilings and walls to be rubbed down, stopped, and faced up. Ceilings to be prepared and whitened. Walls to be painted with four coats of oil paint, finished "egg-shell" gloss.
Woodwork. Graining.	Woodwork to be well rubbed down, stopped, painted with three coats of oil paint, grained plain combed oak, and twice varnished with best copal oak varnish.
	DINING-ROOM.
Preparation.	The ceiling and walls to be well rubbed down, stopped, and faced up—stopping rubbed down to the level of the walls.
Ceiling.	Ceiling to be prepared and finished in distemper of a suitable tint.
Cornice.	The cornice and centre flower to be prepared and painted four coats, and picked out in colour to harmonise with other decorations, and part gilt with best English leaf gold. (Here specify what parts are to be gilded.)
Gilding.	The flat of ceiling to have a suitable ornament stencilled at each corner connected with lines and centres.
Ornament	The walls to be lined with best white or lining paper, value 1s. per piece, and papered with paper of an approved pattern, at 6s. per piece. (If a dado be put round room, state same and price of paper and border.)
Walls.	
Paper, 6s. per piece.	
Woodwork.	Woodwork to be well rubbed down, stopped, faced up, and painted with three coats of oil paint, and finished with one coat of flat colour in low tone colours.
Painting.	The stiles of doors, window linings, hall board, and plinth of skirting board to be twice varnished with best carriage varnish.
Gilding.	One member of moulding of door, architrave, and window linings to be gilt with best English leaf gold.
Picture Moulding.	A two-inch washable gilt picture moulding to be fixed round the room, underneath the cornice, and a ¾-inch O. G. gilt moulding to be placed round room on top of skirting.
Ornament	The panels of door and stall board to be decorated with suitable ornament of good design.
	DRAWING-ROOM.
Ceiling.	Ceiling and walls to be rubbed down, stopped, and prepared.
Cornice.	Ceiling to be in distemper. Cornice to be painted four coats, finished in a suitable tint in flatting, in harmonious tints of colour.
Centre flower.	Centre flower and part of enrichments of cornices to be prepared, sized, and gilt with the best English leaf gold. (Specify what parts.)
Ornament on Ceiling and Cornice.	Flat of ceiling to be decorated with suitable ornament. (State how and in what style.) If cornice is without enrichment, and requires a stencil pattern put upon one or two of its members, state which parts.
Walls, papered. Paper.	Walls, if papered, to be first lined with white lining paper, at 1s. per piece. The paper for walls to be of the value of 7s. 6d. per piece. Joints of both papers to be butted, and not overlapped.
Woodwork.	Woodwork to be rubbed down, stopped, faced-up, and painted with four coats of oil paint, and finished in flat colours.
Decoration.	The panels of doors and windows to have a suitable ornamental design painted upon them.
Gilding.	One member of mouldings of door, architrave, and window linings to be prepared, sized, and gilt with best English leaf gold. A light washable gilt picture moulding to be fixed round room under cornice, and a narrow gilt moulding on top of skirting board.

(To be continued.)

Answers to Correspondents.

All questions should reach the office not later than the 15th of the month, so as to ensure being answered in the succeeding number.

A SUBSCRIBER.—We do not know of any book of designs we could recommend for the purpose named, but if our correspondent will send us the sizes of the panels and pilasters we could get designs for him of a suitable character.

J. & R. PURSEY.—Our correspondents will find all the information we can give on the subject in the June number of the JOURNAL OF DECORATIVE ART.

WE take this opportunity of expressing to our numerous correspondents and subscribers who have troubled themselves to write us in terms of praise of THE JOURNAL OF DECORATIVE ART, the gratification we feel that our efforts are meeting with the approval of the trade in so marked a manner. We shall not stay our hand, but continue steadily in the course we have marked out for ourselves, till we make THE JOURNAL OF DECORATIVE ART a necessary adjunct of every painter's and decorator's establishment. We deprecate anything like "puffing" of our wares, and are content to let the merits of our Journal be its own arbiter, but think it due to the many who have thus shown a kindly interest in our success to acknowledge it in the only way open to us.

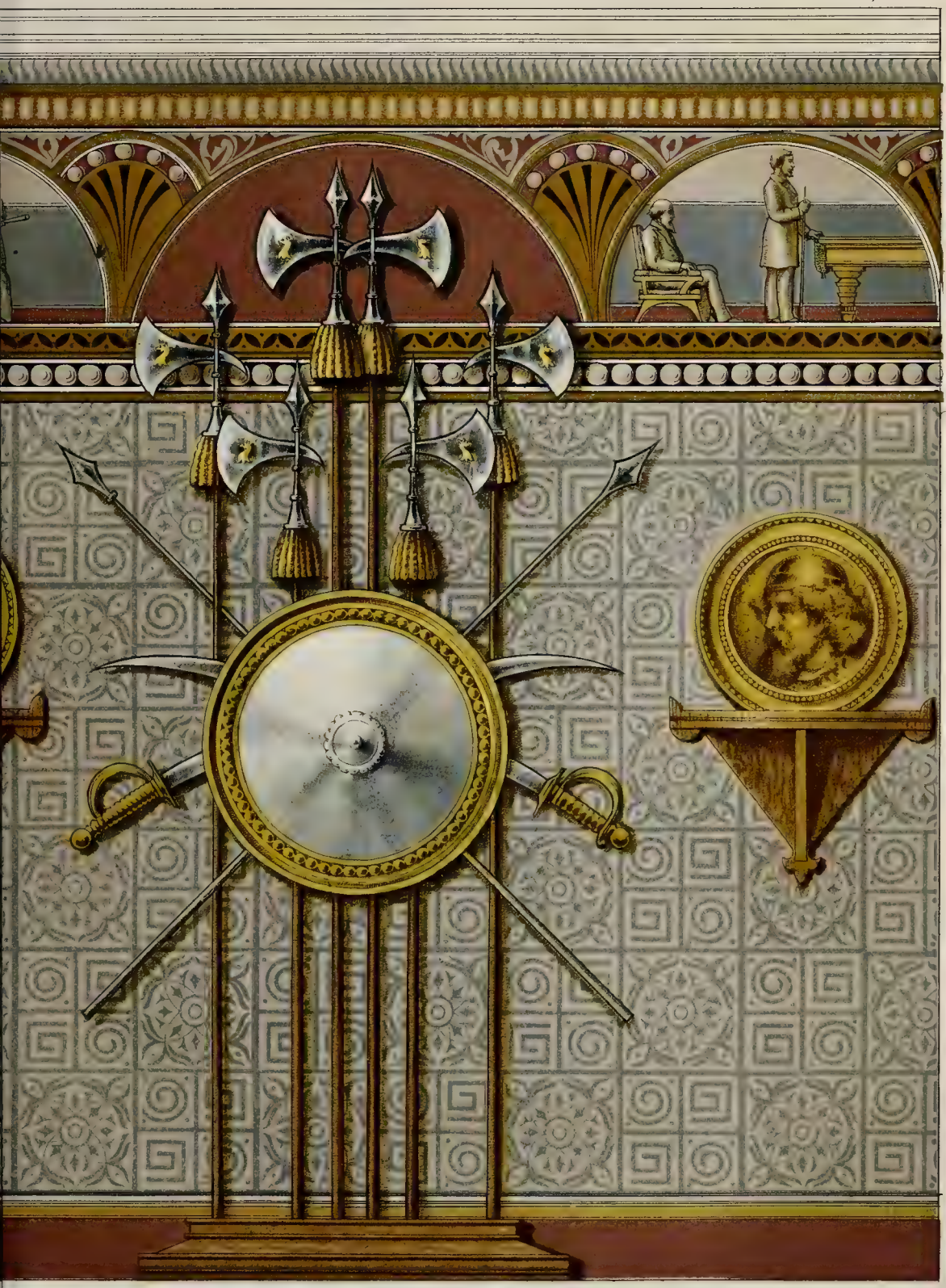
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Specially designed for this Journal.

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"It is one of the affectations of architects to speak of overcharged ornament. Ornament cannot be overcharged if it is good, and is always overcharged when it is bad."—*Ruskin.*

TO OUR READERS.

A GREAT deal is said in England here about the piracy of copy-right by our transatlantic brethren, and a considerable amount of indignation is annually expended on the wickedness of Americans for thus robbing us of our rights. There is a verse somewhere about first extracting the mote from our own eye before bothering with the beam in the orbit of our brother, and we think that we have just ground of complaint in that three of our contemporaries, each professing to be "lights set on a hill," for the illumination of the trades who support the *Journal of Decorative Art*, have used copyright matter belonging to ourselves, in two cases without any acknowledgment of it being a quotation, in the other case disguised as from an "American Contemporary." This is not fair treatment and we trust will not again occur. We are at considerable pains to present to the subscribers and readers of the *Journal of Decorative Art, original matter*, obtained at a very great expense, and as the result of long years of experience. Scissors and paste we know little of, and leave their use to others, whose standard of what a Trade Journal should be is summed up in the word "*Clippings*."

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.

CHAPTER X.

Preparatory Processes.

IN polishing upon varnish, it will always be necessary to give the varnish sufficient time to get hard. No polish can be got by hand except this is so. When the object varnished can be put into a stove such as japanners use, then the varnish can be made hard enough to polish in a few hours, but not otherwise. Some firms send out polishing varnishes which they say can be polished in twenty-four hours. We ean only say that we have not in our lengthened experience yet found a varnish upon which a durable polish can be raised by the hand in any such time: on the contrary, we have always found such varnishes to be the very worst that could be used for the purpose, for although they may appear to dry sufficiently to polish upon, they never seem to get hard, but will soften under the heat of the hand years after they have been done. We ourselves have panels which were polished seventeen years ago with some of the best French oil polishing varnish, and these will even now soften under the hand. As a matter of course these varnishes differ; there may be some that will polish and be permanent in the time stated, but we have not found it so. Putty powder is also much used in polishing, but whatever material or process is used, the principal and absolutely necessary qualities to produce good work are gentle and careful rubbing, unwearying patience, and thorough cleanliness in working. With these, good and beautiful work can be and is produced; without it no good work can be done.

We shall feel pleasure in answering any questions in reference to the above process, or, in fact, of any other process we describe, for although we have written carefully and thoughtfully, yet there may be some small matters we have omitted, and as we have ourselves done such works, we are anxious that our readers shall have the full benefit of our experience.

Distemper.

A very important branch of our subject is Distemper painting. Tempera, or Distemper, as it is now called, was in use long before the introduction of oil paints. The ancient Egyptians used it very extensively for all their colour paintings on the walls of their temples, mummy caves, and monuments; and although thou. sands of years have come and gone, many examples

may be seen in the present day, the colours of which are as fresh and vivid as when they were first done. The Assyrians, Persians, Greeks, Romans, and all the great nations of antiquity used distemper for painting the interiors of their public buildings, tombs, &c., &c. Ezekiel, who prophesied 598 years before Christ, refers to paintings in Jerusalem, after the manner of the Babylonians and Chaldeans. Most of these were painted in distemper, and afterwards saturated with oil, some kind of varnish, or white wax.

Various mediums and vehicles have been used for the purpose of binding distemper colours, such as milk, albumen (white of egg), vegetable gums, flour starch—in fact, any and everything containing gluten have been pressed into the service, many kinds of animal size, size made from parchment clippings, ordinary glue size made from the hoofs of various animals, bits of skin, and all the refuse of tanners' and knackers' yards, glue made from the bones and other parts of fishes, which is a fine clear glue, usually called Russian glue (it being principally imported from that country). In the north of England a size is made from sheeps' trotters and other refuse of the tripe-dressers. This, when fresh, is a clear useful size for distemper. Many improvements have been made in the manufacture of sizes of late years, the principal and most useful of them being Cannon's Concentrated Size, which answers ever purpose for which size is used by the house-painter and decorator.

Distemper painting has many advantages over oil paints when applied to the walls of public buildings, such as churches, assembly rooms, concert halls, and, in fact, any place in which many people congregate. When the walls of these places are painted in oil colour the moist atmosphere which prevails, consequent upon so many people breathing the same air and being crowded together, will condense upon the paint and run down in streams of water. There are few of us who have not seen this effect produced. Now with distemper painting this effect does not take place to any perceptible degree, simply because it has a power of absorbing damp up to a certain point, and although it may become damp it does not permanently show it, and quickly dries again without leaving a stain—we are, of course, now speaking of atmospheric damp. It must, however, be observed here that if distemper is done upon oil paint, as is frequently the case, the power of absorption is lessened, and the water will run down the walls, but not to the extent it will do upon oil paint. Another valuable quality of distemper is its perfect deadness—absence of gloss—and uniformity of surface; no mixture of oil paint can equal it in this respect. Cost is another advantage it has over oil paint, distemper being, both in cost of working and of material, very much below oil paint. Purity of tint is also a valuable quality of distemper. With a clear and colourless size the purest of pure whites is that made from Paris white or best washed whiting, and it follows as a matter of course that when this white is stained or coloured with any of the three primary colours that the purest of tints must result; and, as it contains nothing that will discolour or change like all oil paints do, it must of necessity keep its colour for a much longer period than the latter. As a matter of utility oil paint is preferable in certain situations, especially where it is liable to be injured or smeared by passers by, such as the lower parts of staircase walls and public rooms, but for all situations not likely to be subject to much wear and tear distemper is infinitely superior.

The preparation of ceilings and walls for distempering is a most important part of the process, requiring the greatest care and much knowledge and experience. This is the more necessary from the fact that all plastered walls are not alike, some kinds of plaster containing more mineral salts than others. The difference in the chemical nature and properties of the sand used in the mortar, the thickness of the skimming coat in plaster of Paris or gypsum, all these and many more differences in the constituent parts of any particular plastered wall must materially influence the judgment in deciding what to do in each case. Often it will happen that after all care has been taken and the work has turned out well and appears a good job, in a few weeks' time it will become faded and discoloured in patches, not from any fault of the work, but from the action of the chemical salts or other matter in the body of the plaster. In some districts and with some particular sand this state of things is almost the rule and not the exception. We therefore see how necessary it is to be careful in examining any plaster work into which sand enters as an ingredient before we commence working upon it in distemper. Many persons have an opinion that this defect arises from the distemper work not being properly done, but this is not the case, this special fault is in the plaster and not in the colour applied, although there is, of course, good and bad work in distemper, as in all other kinds of work. There are also certain colours which begin to fade immediately if placed upon plaster, simply because a chemical action immediately commences between the lime and the colour, in which the latter comes off second best. There are at the present time a wide range of colours which are made for the express purpose of resisting the influence of lime. If we examine with a powerful glass any newly-plastered walls which have stood without anything being put upon them until they are perfectly dry we may easily tell whether there is much of these chemical salts in them; if there are, a slight efflorescence will be observed in patches on the face of the wall, and there will also be a difference in

the texture of the surface, due entirely to the presence of these salts. We know of no means of curing this defect except lining the wall with good stout lining paper, and then distempering upon that. Painting with one coat of boiled oil or patent knotting will kill the salts; but we shall not then have as good a job of colour as if done upon the lining paper.

The ordinary plaster work on ceilings becomes very dry, hot, and absorbent; in fact, will suck up water like a sponge. This suction must be cured or stopped before putting the finishing coat of distemper upon the work, or else it would not be possible to make a good job, as the colour would be absorbed so quickly that it would gather one coat upon another and make rough work. There are several mixtures used to effect this purpose. A very old mixture is soft soap, lime putty, and size. Another is made with soft soap, whiting, and size. Some painters use very thin flour paste and alum water, but we prefer to use a preparation of good size mixed with a little whiting and pretty, well of alum mixed with it. The alum hardens the size, and the mixture effectually stops the suction. Soft soap itself is a powerful agent for this purpose. If the suction is stopped the finishing colour will work cool, and will allow time for the workmen to spread it evenly and without its accumulating at the joinings, and thus an even, uniform, and solid job may be done level as a sheet of paper.

(*To be continued.*)

OWEN JONES AND HIS CONTEMPORARIES.

CHAPTER VIII.

"THE GRAMMAR OF ORNAMENT."

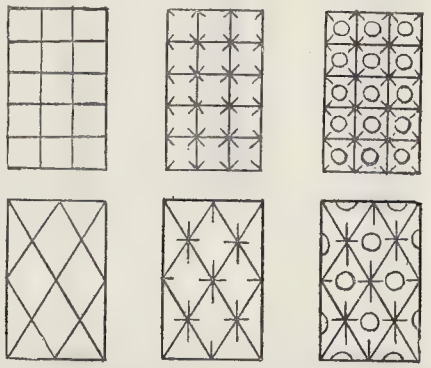
WE have now completed our consideration of the propositions relating to "Form," with the exception of the last one, which we shall reserve for some future occasion and give it a chapter all to itself. Before leaving this part of our subject, however, we wish to say a word or two on "Harmony" and "Repose," consideration of which was deferred at the time when we were treating of "Fitness."

We do not wish to import into these chapters anything that is inconsistent with the subject and that cannot be sustained by example. In using the terms "Harmony" and "Repose" therefore, we are simply naming conditions that are largely conducive to success in any work of decorative art.

It is an axiom generally accepted, that in all decoration there should be a subordination of part to the whole; that no *special* part should obtrude itself upon our notice to the detriment of its surroundings.

How often this law is transgressed our every-day experience can testify. You enter a room and at once your attention is attracted to some special portion of the ornamentation. You withdraw your gaze, and *immediately* afterwards you find yourself looking at it again, and, do what you will, the eye instinctively reverts to it. This is a description of a not uncommon occurrence. Such instances, when they are met with, at once stamp the decoration as wanting in the quality we are now endeavouring to describe, viz., "Repose."

The objection to work of this class in no way presupposes that ornament must be of one dull uniformity, that you must not introduce into it any variety whatever, but, that the *room* or subject you are decorating should form one complete whole, and that the variety introduced, either in form or colour, must all aim at that result. If one part or portion of your design is to have prominence given to it that portion must be so treated in reference to the remainder that you feel it to be the completion and crowning of the entire structure.



(*See Vol. I., Part VII., page 75.*)

In the old Greek Vases, for instance, we are never tempted to lose sight of the proportion and beauty of outline in the vase by the admiration excited in regarding the ornamentation. There is such complete harmony between the two that we regard the one simply as another expression of the same thing.

It will at once be seen therefore, that "consistency" is a first element of "Harmony." To the eye accustomed to dwell on form and colour the introduction of conflicting styles into one and the same piece of work produces on the mind the jarring feeling similar to that produced by discordant sounds on the ear of the musician. There is therefore "harmony of style," the entire decoration being consistent throughout. There is also the "harmony of part to part," treated of when we were considering "Proportion;" and there is "the harmony of fitness," it being in thorough accord with the purposes to which it is applied.

If "consistency" is an essential of "Harmony" certainly "Harmony" is a condition of "Repose,"

*

horse (which was quite fresh), and came to his assistance like a thunderbolt, exclaiming in a voice like a trumpet-call, "*Desdechado* to the rescue." It was high time, for while the disinherited knight was pressing upon the Templar, Front de Bœuf had got nigh to him with his uplifted sword, but ere the blow could descend the sable knight dealt him a stroke on the head, which, glancing from the polished helmet, alighted with violence scarcely abated on the *chamfron* of the steed, and Front de Bœuf rolled on the ground—both horse and man equally stunned by the fury of the blow. The black knight then turned his horse upon Athelstone of Coningsburgh, and his own sword having been broken in his previous encounter, he wrenched from the hand of the bulky Saxon the battle-axe which he wielded, and dealt him such a blow upon the crest that Athelstone also lay senseless on the field. Having accomplished this double feat, he retired to the extremity of the lists, leaving Ivanhoe to settle with the Templar. We need scarcely remind those who have read Scott that this powerful warrior was none other than Richard Cœur de Lion, disguised as the black knight. Sable is indicated in engraving by horizontal and perpendicular lines crossing each other, as in example shown.

No. 7.
TENNÉ.



Orange.

Tenné or Tawney, No. 7, is a colour not much used in the present day, and signifies orange. It is represented in engraving by diagonal lines drawn from the sinister side of the shield to the dexter, and traversed by horizontal lines.

No. 8.
SANGUINE.



Dark Red.

Sanguine, No. 8, signifies Murrey colour, and is represented by lines crossing each diagonally from the sinister to the dexter side, and from the dexter to the sinister side.

No. 9.
PURPURE.



Purple.

No. 9 Shield, Purpure or purple, is represented in engravings by lines drawn from the sinister side of the shield down to the right base.* This word retains more of its Latin than French origin. *Purpura* has been translated into *pourpre* or *purpure*, and is a mixture of blue and red.

* As we stand opposite a shield the sinister side is that which is opposite our right hand, and the dexter side opposite our left hand.

These engraved lines and dots enable us when viewing an engraving of a coat of arms to tell at a glance in what colour each part should be painted or gilt. It is necessary here to observe that in setting up or composing coats of arms it has always been a rule never to place metal upon metal, or colour upon colour, although there are instances in ancient coat armour where this rule has been disregarded, but they are so exceptional that they do not affect the rule; nor does this rule apply when the shield is divided per pale, per fess, &c. It is said to be divided per pale when the shield is divided into four or more equal parts by perpendicular lines consisting of two different colours. When the shield is divided into six, eight, ten, or more divisions, paternise, it must be blazoned of six, &c.; but if the number is odd then the number of pales is specified, as then the metal or colour is not supposed to be laid upon another metal or colour but placed contiguous to each other.

In the palmy days of the scenes of heraldry many other methods of blazoning arms were used. The dialect used by the gentry was borrowed from the French; and in blazoning the arms of noblemen and royal personages, precious stones, the planetary system with its constellations, all the metals upon and in the earth, and even time, the cabalistic science of numbers, man's complexion, temper, and age, were pressed into their service; imaginary animals, and, in fact, every available thing was made use of by adepts to dignify and enhance the value of the science.

(To be continued.)

ON THE MATERIALS AND TOOLS USED BY THE HOUSE PAINTER AND DECORATOR: THEIR PROPERTIES, COMPARATIVE VALUE, AND USE IN THE TRADE.

THE P.P.P. PAINTS.

MESSRS. JOHN MATHEWS & CO., of Hatton Garden, Liverpool, have for some time past been making and selling special paints of a *standard* quality. All in the trade know the different qualities of paints there are nominally the same. We have, for instance, bought ochre at 17s. and 45s. per cwt., and have found the heavier-priced article the *cheapest*. It is to meet this discrepancy of qualities that Messrs. Mathews & Co. have produced the P.P.P. Paints.

All goods sold of that brand are of one recognised value, never deviating from it. They are finely ground, of excellent quality, and reasonable in price. As the coloured illustration of this month is being worked out with these paints we gladly direct the attention of the trade to them.

OUR ILLUSTRATIONS.

WITH our present number we publish a double-page illustration showing decoration for billiard-room now in process of execution at Moranedd, Rhyl, the residence of J. Churton, Esq., J.P. The decoration on part of wall here shown has been specially designed to admit of the display of the halberds, spears, swords, &c., appertaining to the high and honourable office of High Sheriff of a county, which position the above-named gentleman occupied in the year 1875 for the county of Flint.

The frieze is divided into semi-circular panels divided by spandrils. As will be seen, the alternate panels are coloured so as to show off to the best advantage the steel heads of the halberds, the other panels being filled with representations of figures playing at billiards. The spandrils are filled with conventional representations of billiard balls and cues; the lower portion of the frieze is also ornamented with the balls. On the centre of the wall a trophy of arms is arranged, to break the straight lines of the staves of the halberds, having a shield for its centre, and on each side are two oak brackets, on which are shown two examples of *repoussé* or hammered metal work. The walls have a stencilled diaper pattern on them, worked in monotones, or two tints of the same colour or nearly so, the ground colour being a little warmer than the stencil colour, both being made from black, Indian red, blue, and raw sienna mixed with white. The colour of semi-circular panels behind the halberds is made from Indian red, ultramarine, and black. It is usual to put a dado on billiard-rooms, which, in most cases is a wise plan, on the score of utility alone; but as the billiard-room here shown is only shut off from other parts of the building by curtains, it has not been thought desirable to follow the usual practice. The contract for the alterations was let to Mr. Whitely, builder, Rhyl, Messrs. Bennett Bros., of Liverpool, supplying the chimney pieces, and the decoration being carried out by W. Sutherland and Son, of Manchester. Mr. Owen Edwards, Russell Road, Rhyl, is the architect.

OUR PRIZE SCHEME AND EXHIBITION.

We draw the attention of our readers and subscribers to an announcement made on page x, in our advertising columns. The scheme which we shall submit in our next issue will be one of great importance and interest to the trade, not only from the fact that we shall offer prizes amounting in value to £80, but we trust to evoke a spirit of honourable emulation, which will give a great impetus to the practice and extension both of the Decorative and Imitative Arts in connection with House Decoration.

We, therefore, confidently appeal to our many friends to make it known as widely as possible to all likely competitors, and to all interested in the wider extension of a knowledge of Decorative Art.

ON THE CURE OF DAMP WALLS, AND THE DRYING OF NEW PLASTER.

CHAPTER V.

THE Sanitary Paint Company, of Liverpool and London, also manufacture an indurating fluid, of the same nature as the one before described, which has been thoroughly tested for years, as a preservative against decay, on stone and brick, and for all damp walls in which the damp comes from the outside. Of course, in all these cases, the solutions or paints must be put on the outside of the wall. By doing this we produce a hard impervious coating in thickness according to the nature of the solution or paint used, and which cannot be penetrated by the wet.

One of the best and most severely tested of these solutions is that patented all over Europe and America by the Indestructible Paint Company, of 27, Cannon Street, London, E.C. This invisible solution is the invention of Mr. H. Browning, the manager of the Company. It is a common remark when speaking of anything hard and firm to say that it is as solid and hard as a block of granite. Like many other wise saws, there is much truth in the saying, but we must take it with a reservation, for, although granite is the hardest of building materials, it is not too hard to be unaffected by the unfavourable conditions of the atmosphere in which it may be placed, for it is a well authenticated fact that even the hardest of granite becomes disintegrated by the action of certain chemical agencies contained in the air of our large towns and cities, and, in fact, this takes place in varying degree under any and all conditions. There are certain portions of its substance which are thus acted upon, and which crumble away. This process is continually going on, much quicker, of course, when the air is foul. Now, it is proved beyond a doubt that if this solution is applied to such works, decay or disintegration is arrested. The granite, stone, or brick is supplied with the very substance it has lost or is losing, and it thus becomes renovated or rejuvenated, and made as firm, hard, and durable as when it first was hewn out of the quarry; possibly more so, as it is supplied with a larger proportion of the fluid than it originally possessed in its primitive state. This solution has been applied to the Egyptian obelisk, erected on the Thames Embankment, with admirable effect, even in a decorative point of view; and Cleopatra's Needle will now go down to future ages with less injury than it has received in its long rest on the banks of the Nile. Besides this invisible preserving fluid, the Company manufacture paints which resist the action of all acids and alkalies. Ironwork of every description is preserved effectually from

corrosive action, and woodwork painted with it is not only preserved but is freed from vermin of that exceedingly troublesome kind which generally haunt ships' cabins, bedstocks, &c. These paints are also excellent damp repellents, and may be used with advantage on outside walls to resist wet.

Messrs. Williamson & Co., of Ripon, the eminent and old-established firm of varnish makers, send out an admirable damp-proof paint. It is quick in drying, and forms an impervious enamel surface through which wet cannot penetrate. It is inexpensive, easy of application, and altogether a damp-proof paint which we have no hesitation in recommending to our readers.

Messrs. Randall Bros., of 12, Lime Street, London, manufacture a composition for coating slate and tile roofs for preserving them from the effects of rain and wind; also a series of Adamantine Enamel Paints, which they state will render wood, stone, iron, or any other material upon which they are placed, thoroughly impervious to damp, foul air, water, or deleterious gases. These paints dry quickly, and form a solid, hard enamel, with a polish equal to a highly-varnished surface. Great heat does not blister them, nor cold affect them, no variation of temperature having any influence upon them.

In bringing these various damp-resisting solutions before our readers, we have been desirous only of acquainting them with the different systems and mediums available for their use. Many of them come with strong recommendation, and backed up by the test of many years' trial.

There are, no doubt, other firms who manufacture damp-proof paints, and we shall have much pleasure in bringing them to the notice of our readers at some future time.

We do not enter into the question of the composition of these various solutions. No doubt there are in most of them essential chemical constituents alike or nearly so; but in all chemical products a slight addition to or subtraction from certain combinations will materially alter and, in fact, altogether change their qualities, and it is no doubt in this particular direction that these solutions differ. This is, however, a question apart from our purpose. We can only speak of the effect produced by each particular composition, and not of the mode of its manufacture. We must again remind our readers that we do not advocate the use of any of these paints or solutions except in cases where the damp comes from the outside. None of them will effect a *cure if the damp arises from the ground*, but any of them may be used, even in the latter case, to form a hard enamel surface to receive paper, and *for a time* they will prevent the wet from appearing on the surface—but only for a time. There is no effectual cure for ground damp but the insertion of a damp-proof course.

THE EXHIBITION OF DRAWINGS AT SOUTH KENSINGTON.

It is now more than a quarter of a century since the South Kensington schools were established, and, with its auxiliaries, it may be said to have fairly taken its place as a part of our national educational life. Much, doubtless, remains for it yet to accomplish in the way of further extension without, and of a greater development of its scope and aim from within—but sufficient has been done to form a basis, to roughly estimate its worth and influence as an educational agency. The present exhibition may be taken as a fairly representative one, not differing much from its predecessors in either character or quality. Of the latter it may be conceded that if there is any difference it is one to the credit of the present display.

The drawings are arranged in the South Galleries (upper floor) adjoining the Horticultural Gardens. In taking a casual survey of the exhibits we are at once struck by the large proportion (we had almost said disproportion) of female exhibitors, and not merely as exhibitors but as prize-takers, many of the medals falling to the clever pencils of our lady students. The next fact forced on our view is the creditable position taken by the provinces, comparatively few (considering all things) going to London students. There is nothing to regret in this, as the wider the ramifications and influences of our art schools are spread the better it is for the nation at large.

Nottingham holds an exceptional place, many of the competitors from this town appearing as prize-winners.

Altogether the exhibition is one showing good honest work and endeavour. As was to be expected, there were many examples of flower-painting displaying great mastery of touch and technique, those by—Bayfield, Bristol, being especially noticeable. The strongest point of the collection consisted in the merit of execution.

As we are ignorant of the grounds on which the prizes were awarded, we are not in a position to gainsay the decision of the judges, but in several instances the awards seemed to the uninitiated open to question. The gold medal for architecture is taken by Mr. H. G. Smith, with a design for a cathedral, which was marred and almost spoilt by the "fussy" manner in which it was worked out. There is a very wide margin for improvement if the drawings sent in are representative of the architectural skill of our art students.

The gold medal for painting from still life seemed to be worthily placed, the successful student being Mr. R. S. Morrison, of Liverpool, Elizabeth A. Bark, of the same school, taking second place with a painting of the identical subjects,—a study of very great merit, but not equal to that of Mr. Morrison's. Two ladies from Manchester, Miss Annie Haskins and Miss Constance Prince, also came in for silver medals, one for a study of shells on an old oak table, and the other a copy of a vase, old plaque, peacock's feather and fruit—this last very artistically rendered indeed. Mr. Walter Boyd, of Birmingham, who was credited with a book prize, was more entitled to a medal than some who had received them. Florence Plant, Birmingham, Janet McGoun, Edinburgh, Rowland Alnutt, Wolverhampton, and Mr. Keeling, Sheffield, all sent very creditable work.

One or two excellent specimens of modelling were sent in. The recipient of the gold medal, Mr. Drury, certainly won it. His figure of a man, seated, in a startled attitude; being both vigorous and masterly.

Turning to the purely decorative and ornamental portions we see no reason for exultation at the united productions of the schools; in fact, there is much cause for regret that the results are so meagre, and we cannot but think that, if instead of letting our students devote so much of their time to painting jugs, and pipes, and cheeses, their attention was directed to the cultivation of the sense of form as applied to decoration, more satisfactory results would follow. There is an absolute glut in the market of talent that can paint "furnishing" pictures, and a corresponding lack of good designers. The truth of our comment is borne out by the fact that Nottingham stands pre-eminent in this special branch of work, a position due to the fact that attention in the Nottingham schools has been given more completely to the study of decorative art.

In the Owen Jones' competition, for the best original designs for applied art, three bronze medals go to Nottingham for designs for wall papers, one of the winners being a boy of 15 years, and his design was the one that most commended itself to our judgment.

In the award for carpet designs both the gold and silver medal go to Kidderminster, but had the awards been reversed, and the gold medal assigned to the design of Mr. J. Lamb, and the silver medal to Mr. G. Fidler we should have been better pleased. This is one of those mysteries we cannot attempt to discover, the judicial mind evidently being subject to considerations from which ordinary mortals are exempt. We cannot but think that if Owen Jones had been adjudicator the result

would have been as we have indicated. The design that obtained the gold medal for wall decoration (Miss Liberty, Nottingham) seems to have been fortunate in getting it with little effort, it being but of very moderate merit.

The most satisfactory of all the exhibits were the lace designs, and here the ladies are very strong, Miss Mary Joyce, of Dover, carrying off the gold medal with a very charming set of designs.

In fan designs one that had received a book prize was labelled "Conventional Landscape," the only claim it had to the title being one or two faint rushes protruding from the water; it could have been framed as a landscape painting with the most perfect propriety.

There were some very good tile and plaque designs, some designs for metal work and some sterling work in studies from the cast and the nude. Taking it all in all for what it is, there is plenty of ground for hope for the art future of our people.

The leaven is quietly at work leavening the mass, and we must not rest content till our entire educational system is impregnated with a sense of, and love for the beautiful.

ART NOTES.

One of the unforeseen results of that very clever satire on the æsthetic craze, Gilbert and Sullivan's "Patience," has been to make the demand for this kind of dress greater than ever.

Not even the "Colonel," or "Grigsby" himself, can deny the great artistic merit of the dresses as seen in the new opera, and the "posings" and "groupings" on the stage are perfectly "classic" in their beauty, or to use the language of the "inner brotherhood," "quite too consummately utter."

One of the best (if not the best) exhibits in Messrs. Hildesheimer and Faulkner's Prize Competition for Christmas Cards, is a drawing of one of the scenes from this very opera. It rivals some of H. S. Marks' efforts.

The competition above alluded to evoked an enormous response, no less than six thousand frames being sent in, and as the average contents of a frame were four designs, we get a total of near on twenty-four thousand designs.

Of this number some four thousand frames, or sixteen thousand designs, were, for sufficient reasons, excluded from the competition, the bulk of the excluded ones being from the Continent; Germany again being the largest contributor of any one country.

The fault we had to find against the enormous residuum was not that they lacked talent and skill, but that they were in the majority of cases destitute of any special appositeness to the specific purpose they were sent in for.

Beautiful landscapes in oil and water colour, well drawn and painted heads, both adult and juvenile, cattle scenes, marine views, etc., etc., and but for a sprinkling of card designs that gave indication of their purpose, it might have been an ordinary picture exhibition.

There were some admirably painted flowers, as was to be expected. "The Seasons" were a favourite theme of exposition in "flower" and "figure." Our space will not permit us to specify in any detail; we liked the one before alluded to best. "A Dream of Patience," No. 332, and next to it (surpassing it in real decorative art), No. 454, "Flowers," six designs showing back and front of a three-leaved folding card. The artist had a true conception of the limit to which he should carry his realistic art. Just before going to press we find that 332 has gained the £200 prize (Miss Alice Havers), and 454 comes in for a £50 prize (W. G. Saunders).

The entire competition cannot fail to do a great deal of good both to competitors and the public.

We recently had an opportunity of seeing the interior of the Mercers' Hall, Cheapside, designed and decorated by Messrs. J. G. Crace and Son. It is conceived in a free *renaissance* spirit; the detail is most excellent, and the *tout ensemble* perfect. It goes without saying that no cost or pains has been spared to make the work in all things worthy of the place, and of the firm who carried it out.

When in the neighbourhood of Kensington, we would advise our readers to slip into the new Natural History Museum there. Apart from the museum itself, a lesson may be gathered from the painted decorations as to the value of simple forms when repeated. The decorations are extremely simple but very good.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

BY THE EDITOR.

CHAPTER X.—MAPLE IN OIL.

TO grain maple in oil is much more difficult than in distemper, but if well done, and carefully, very beautiful imitations may be produced. The ground for this work must be got up as smooth as possible, being well papered between each coat; but the last coat before graining must be well strained, and laid on so that it will not require to be touched with sandpaper before graining, because the marks left by the paper are likely to show in the unfinished work. The graining colour must be mixed in the same manner as light Oak graining, viz.: Mix two-thirds linseed oil with one-third turpentine, stain with Vandyke brown, and a little raw sienna, have some drop black also at hand, for occasional use, add sufficient bees-wax dissolved in oil, but only just enough to set or prevent it from running in working. Great care should be taken that the brushes and everything used shall be free from dirt or grit, as the success of the work will, in a great measure, depend upon cleanliness. A panel may now be laid in with the colour. Rubbing it somewhat bare, we now take a damp washleather rolled up in a tight roll or pad; with this we take out the lights or mottle, as described in distemper work. When the large mottle is thus wiped out, the small and fine mottle may be put in by using the washleather over the thumb nail as in wiping out the figures of oak. With care and judgment beautifnl fine silky reflective lights and shades may be produced. When this is done the whole should be well softened and blended with a stiff badger-hair softener, having a good firm spring with it, as it is only such a tool that will move the colour and blend it. We now put in the knots, or birds'-eyes, with a dark colour composed of burnt sienna with a little Vandyke brown mixed with it. These may be put in with the pencil as before described, or with a tool made with a pencil stick, made oval at one end and wrapped round with a strip of washleather in such a form that only one thickness of the leather shall appear round the stick; this tool dipped into the dark colour and then on to the work leaves a semi-round mark, but whether put in with this or the pencil, the marks must be softened with the badger; this will spread, and blend them a little into the graining colour, and while the whole is wet we take a

fine pointed pencil-stick covered with a clean rag or bit of leather, and wipe out the reflective light which divides every knot or birds'-eye in the natural wood. This is again slightly softened; we then take the wash-leather over the the thumb nail and wipe out the bright light which springs from every knot or eye; these lights and also the mottle may be graduated into the dark or shaded parts of the mottle by covering the broad or inner side of the end of the thumb with leather or rag, and gently dabbing the parts with it; this action takes off the colour in a slightly granular form, somewhat akin to stippling with the point of a pencil. When the whole is thoroughly dry the over-graining can be done either in distemper or oil; in either case the work must be damped down with a damp leather, in order to prevent its cissing. A thorough knowledge of the method of graining this wood in distemper should be acquired before attempting it in oil.

MAHOGANY.

The wood of the mahogany tree (*Swietenia Mahogoni*) reaches a height of from 80 to 100 feet, and is a native of the West Indies and of South America. It has pennate leaves with three to five leaflets, and panicles of small whitish flowers; the stamens unite into a tube which is toothed at the summit and set round on the inside with eight to ten anthers. The capsule is five-celled, about the size of a man's fist, hard, woody, and oval, and the seeds are winged at the apex. It attains an immense size, second to few others, and is generally sound throughout the largest trees. It is of very slow growth, and it is supposed that 200 years is the average age of the largest. It grows in great abundance on the coast of Honduras and around Campeachy bay, from which place most of the mahogany used in Europe is exported. St. Domingo and Cuba also yield a considerable quantity. In 1880 the quantity of mahogany imported into London alone was 261,000 tons; during the first six months of the present year, 144,000 tons. St. Domingo and Cuba mahogany is of a finer quality than that grown on the mainland, which latter is called baywood, to distinguish it from the Cuba mahogany, usually called Spanish mahogany, "Spanish" being richer in its colour and markings or mottle and curl. The wood varies much in value, one log being remarkable for the beauty of its curl and colour, and this will of course bring a much higher price in the market than one of a poorer kind, a single log of this kind of mahogany cut into veneers having been known to realise £1,000 sterling and upwards. Mahogany had a rather singular introduction into England. In the year 1597 a quantity of it was used to repair one of Sir Walter Raleigh's ships at Trinidad; when it arrived in England the wood was greatly admired, but it did not become an article of commerce until rather more than a century afterwards, when a similar accident brought it into demand, and it became an article of luxury, and has since maintained its position as the principal furniture wood. Its bark has a faint aromatic smell and a very astringent bitter taste. In the countries where the tree grows it is often used as a medicine; in England it has been prescribed and used under the name mahogany bark, or amoranth's bark, as a substitute for Peruvian bark.

To grain this wood in distemper we first prepare the ground colour, which should be made with white, Venetian red, and a little orange chrome. Light red, *i.e.*, burnt Oxford ochre, makes a capital ground for mahogany. The colours to grain with are Vandyke brown, burnt sienna, and Victoria lake; all these colours may be obtained ready ground in water, or in collapsible tubes, which is the cheapest way. Honey or sugar added will prevent it drying up in the pots for a much longer period than it otherwise would. Glycerine is also used for the same purpose. Victoria lake is an admirable colour for mahogany, both for graining and glazing. The graining colour must be used with beer diluted with water, care being taken only to have the beer strong enough to bind the colour, as if too strong it causes the varnish to crack. It should also be borne in mind that when using burnt or raw sienna that they have a binding power of themselves, not requiring much, if any, binding medium to work with them. We first damp down the work with a sponge, water, and a very small quantity of best washed whiting, to prevent cissing. If the panel is to be simply mottled we rub in the colour moderately strong in tone all over the panel; we then take a mottler dipped in a weaker solution of the same colour and wiped on the leather, and draw it down the panel, giving the colour the run or direction the mottle has to take, leaving the colour on the panel in streaks, having a little difference in shade. We now take a thin hog-hair mottler, called a cutter, which is made with a fine feather edge; with this, which must be wet and clean, we cut out portions of colour left on the panel, and in this way we form the reflective lights and shades we see in the best Spanish mahogany. This is easily done if we hold the cutter so that only its extreme edge will touch the colour; if held properly it will cut out the mottle sharp, clean, and bright. It must now be softly badgered across, that is, in the same direction as the lights which have been cut out; this, if it is carefully done, will soften and blend the one into the other without destroying its form. Some good effects may be got by using a camel-hair mottler for cutting out the lights. After the first graining is dry, we can wet it, if carefully done, and work on it again as described in maple graining in distemper. It is now ready for overgraining. For this purpose we use a flat sable-hair overgrainer, and a mixture of weak beer and blue-black. This must not be too strong; it is best to be guided by the strength of overgrain as seen in the real wood; blue-

black we have found to be best for the purpose. It is used thin, and when it gets on the mahogany colour, as a matter of course, its coldness is modified, but still it retains enough to form an agreeable contrast, besides, being blue-black, it can be used lighter in tone than any other colour. With this overgrain and colour we commence to put in the overgrain, starting with the full width of the hairs, (having previously passed an open-toothed comb through the hairs which divide them, and thus cause them to form an open grain) and in its progress down the panel if we slightly turn the hand in a slanting direction and then again to the full width of the tool we thus form a variety in the grain, because when we hold the tool slanting the hairs go closer together but open again when held flat. While the overgrain is wet it may be slightly softened upwards with the badger, which causes one edge of the overgrain to be a little darker, as it is seen in the real wood. The work must now have one coat of varnish previous to being glazed and enriched in colour. We have described the simple mottled wood above, in our next we shall treat of the curled or feathered mahogany and baywood.

(To be continued.)

THE FURNITURE TRADES EXHIBITION.

IN May, 1851, amidst much splendour and outward pomp, the Great Exhibition—"The World's Fair"—was opened. Royalty not only graced the opening ceremony, but it was mainly due to the enterprise and energy of H.R.H. the late Prince Consort that the "Show" came about at all. We all remember with what hopes and fears the new experiment was regarded—how it was to be the harbinger of the millenium, how through its means the sword was to be turned into the ploughshare and the spear into the pruning hook, nation was no more to war with nation, but Peace was now to spread her wings o'er the earth and command universal obedience. These were the noble and lofty ideals of many at that time, and though they have been falsified in a stern and terrible manner by subsequent events, the experiment was in nowise a failure even from this standpoint.

It served in no small degree to break down our insular prejudices and open our eyes to the merits of nations other than our own. Notwithstanding the immense success of the undertaking, it was not thought desirable to hold another before a period of ten years had passed by; and then in '62 the second attempt on a large scale was initiated in Kensington Gardens under the auspices of the same promoters, and resulted in a success quite equal to its predecessor. The next effort in the movement was, after the lapse of a term of eight years, to institute annual displays. This effort, made under the directorate of South Kensington, dragged on a feeble existence for a few years, and finally perished of inanition. But we live in progressive times, times in which ideas mature rapidly, and instead of having exhibitions at intervals of a decade, or even of twelve months, the genius of latter-day exhibitions, inspired by the sight of a large empty Hall at Islington, has decreed that we shall have them monthly. To-day it is an exhibition of building materials, to-morrow a display of dairy produce. One day the curtain falls on an exhibition of millers' implements and their produce to rise the next day on a show of brewing utensils and material.

How far these frequently recurring shows may fulfil their purpose is an open question. Some of them succeed, some fail. Their only justification at all is that they shall be successful, that their scope and character shall be such as to command a good class of exhibits, and to inspire the public with confidence in them, otherwise failure must follow; when once the novelty has worn off, the attraction will have gone with it.

The latest display of the kind was the Furniture Trades Exhibition. This is the first of the series, and, tested by the standard we have laid down, we cannot consider it a complete success. The thought most suggested to us was that this latest-born of exhibitions might, with advantage to both, have united itself with the Building Exhibition, as in a very large number of cases the exhibits were almost identical with those shown at the similar one in April last. This at once lowers its position and detracts from its interest.

The index to exhibitors included some of the best known of our London manufacturers, and others from the provinces not so widely known, but who, from the excellence of their workmanship as displayed in their exhibits, deserve all the publicity they can get.

As was to be expected, specimens of almost every kind and style of work was to be met with—Chippendale, Sheraton, Adamesque, Anglo-Japanese, and Queen Anne, while there were some showing a decided tendency to revert to the old Rococo style, of which we thought we had seen the last for some time to come.

The Exhibition seems to mark off the great advance we have made in our applied arts since 1851. No such an array of common-sense and artistic furniture could have been produced at that time for love or money; and that we find such excellent things shown as the "common-places" of the trade is a fact we may feel proud of.

Messrs. G. S. Lucraft and Son had a most extensive collection of high-class goods of various styles, not the least interesting of which was the portion set apart for the display of Japanese goods, some very excellent examples of which were shown.

Messrs. D. Hulett and Son's large show of their gas lamps, &c., call for no special comment, beyond our saying that they were up to the usual standard of this firm.

Mr. W. Ramsey had a stand showing his well-known head lights for windows and screens.

Messrs. Pontifex and Wood were conspicuous with a stall on which were displayed specimens of their celebrated vegetable varnish stains, and examples of inlaid work done with them, some of the specimens of the latter showing great capacity for ornamental work.

Mr. W. Cluse, cabinet brassfounder, was exhibiting a very good collection of all sorts of ornamental brasswork required for high-class cabinet-making. Some very artistic *repoussé* work specially claimed the visitors' attention.

Messrs. C. and R. Light had a most extensive range of furniture, embracing bedroom and entertaining-rooms, in all styles. Their Registered Design Book is at once a tribute to their enterprise and comment on the extent of the business they do.

Whoever would have thought of the old rush chairs of our grandmother's time becoming the fashion again? Yet so it is, but not for kitchen purposes; the "rush-bottomed chair" is now promoted to service in the drawing-room, and we are bound to confess that a very elegant suite they make, if we are to judge by some specimens exhibited by Messrs. B. North and Sons, West Wycombe, Bucks. The designs shown were all marked by great elegance combined with strength. This firm were also showing a number of very artistic designs for furniture of a more ornate character.

Amongst the most praiseworthy of the exhibits were some shown by Mr. James Loder, of Cheltenham. They were eminently artistic, and withal simple, a combination not often obtained.

The Austrian Bent Wood Company had a large assortment of their speciality, interesting as showing the capabilities of their material.

Some of the best parquet work we have seen for a long while was that shown by Mr. T. C. Turpin, of Queen's Road, Bayswater.

We were disappointed at the exhibits of Messrs. Jackson and Graham, and we think they were somewhat unfortunate in matters of colour. The panelled room, excellent in design as it was, had a "washed-out" appearance, suggestive of a preparatory state of painting.

Whilst the "blue" and "green" stained furniture was simply hideous in point of colour, the designs were all very good, as indeed we should expect them to be, seeing that Mr. R. W. Edis, F.S.A., was their author.

Mr. H. C. Stephens was here, as a matter of course. His stains are familiar as "household words," and continue to maintain their popularity despite the efforts of rival competitors.

Messrs. Ashton and Green had a large assortment of their grates, tiles, and fireplace furniture.

Messrs. F. Walton and Co. also had a good display of their "lincrusta," a decorative medium of great value, of which we have had occasion to speak before. Decorators who have not yet used this invaluable material should seek to do so, as we are certain they will be gratified with it.

Messrs. Steel and Garland were well represented in grates, tiled hearths, &c., &c.

Messrs. Hodkinson and Clarke; Clarke, Bennett and Co.; W. H. Lascelles, and other well-known names, were all to be found here.

A very good display was made by the Art Tile, China, and Glass Painting Co. A stained glass window of festoons and medallions, in light Italian character, was very good in its drawing and simple and quiet in its colouring. Some birds in black outline on terra cotta plaques were likewise excellent for their good drawing, as, indeed, were most of the articles shewn on this stall.

Messrs. Webster and Co., gas engineers, Nottingham, were showing a very simple but capital little gas fire stove, that retains and radiates an intense heat.

This being the first exhibition of its kind it must not be judged too severely; it partakes largely of the nature of an experiment and must be regarded from that standpoint. We shall certainly look for better things another year should the management decide upon holding a second one.

DRAFT OF SPECIFICATION FOR PAINTING AND DECORATING A MIDDLE-CLASS HOUSE.

SPECIFICATION & ESTIMATE of cost of Works to be done at Goodwork House, situate in the Parish of Fairprice, for James Haveitwelldone, Esq.

(Continued from our last.)

	BREAKFAST OR MORNING ROOM.
Ceiling.	Ceiling and walls to be stopped and prepared. Ceiling to be finished in distemper colour a suitable tint.
Cornice.	Cornice to be tinted in accordance with paper.
Walls.	Walls to be papered with paper at 3s. per piece.
Woodwork.	Woodwork to be rubbed down, stopped, prepared, and painted, in low-toned colours, with three coats of oil paint, and once varnished.
Varnish.	Mouldings picked in black.
	HALL AND STAIRCASE.
	Ceilings to be cleaned, stopped, prepared, and whitened.
Walls.	The upper part of walls to be prepared and finished in distemper colour a suitable tint (or painted). The lower part of walls to be painted in oil colour 3ft. 6in. above the skirting of a suitable colour.
Dado.	An ornamental border to be stencilled upon the top of dado.
Woodwork.	All the woodwork in staircase, landings, and entrance hall to be rubbed down, stopped, prepared, and painted three coats, and grained in imitation of dark brown oak. Mouldings to be blacked in imitation of ebony, and the whole twice varnished with the best inside oak varnish. Banisters of stairs to be painted bronze colour, and part gilt. (Here specify what part of steps and risers of stairs to be painted four coats, grained, and varnished.)
	KITCHEN, SCULLERY, LARDER, WASH-HOUSE, AND CELLARS.
	The ceilings of kitchen, scullery, larder, and wash-house to be stopped and whitened.
Walls.	Walls to be stopped, prepared, and painted four coats of oil paint.
Woodwork.	Woodwork to be rubbed down, stopped, painted three coats, and grained a middle shade of oak in plain combing alone, and once varnished.
	Cellars to be lime-washed, and woodwork painted with three coats of oil paint.
	OUTSIDE WORK.
Pointing.	All window and door frames to be examined and pointed when required with good hair mortar.
Front Door.	Front door to be well rubbed down, stopped, prepared, painted two coats, grained oak in a superior manner, and twice varnished.
Back and Side Doors.	Back and side doors to be rubbed down, prepared, painted two coats, grained oak, and once varnished.
General.	All sashes, frames, spouts, down-spouts, cornices, faceboards, and all wood and ironwork usually painted, and not otherwise specified, to be dusted, prepared, and painted two coats best oil paint, finished plain.
Price.	The whole of the above specified work to be done in a workmanlike and satisfactory manner for the sum of £ s. d.

W. J. SMITH.

Trade Intelligence.

WE notice that the Albissima Paint Company received the award at the International Sanitary Exhibition for their Patent White.

MESSRS. J. B. ORR & Co. (the Silicate Paint Co.) gained the award for their silicate distemper "Duresco." We have had occasion before to speak in high terms of "Duresco," commendation we can now only endorse.

PRICES have ruled very steady the last few months, turpentine having maintained an average price of 38s. per cwt. during the year. Linseed oils are quoted at 29s. and 31s. 6d. Lead remains at its abnormally low figure of 23s., large quantities being booked at a reduction even on this.

Answers to Correspondents.

All questions should reach the office not later than the 15th of the month, so as to ensure being answered in the succeeding number.

T. W. Y., MUCH WENLOCK.—A good ground for door would be a dull cream approaching to a vellum colour, but this will always depend upon the general colour or tint of the walls. If the walls are papered, we would take the ground colour of the paper (if suitable) for the panel colour, and if it were not so, we should use what would be the most harmonious contrast to it, and in this case paint the stiles of the door of the colour of paper. The colour of ornament to be put upon the door must be governed by the same laws, as it is always in good taste to have all the decorations of a room in keeping, that is to say, they shall have some particular feature, whether in colour or form, that shall have a clearly-defined relation to the other parts of the room, and appear as one complete scheme. Following this plan you cannot get wrong. As to colour of ceiling, if the walls are like our coloured illustration referred to, we should tint the ceiling a warm grey, with greys, dull pinks, and whites in cornice. The scroll pattern may be stencilled in a darker tone of grey.

A CORRESPONDENT asks what is the best way to finish off oil gilding. All oil gilding should be coated over with weak size made from parchment clippings or good isinglass, or, in fact, any other clear size free from grease. To darken and enrich the colour of gold a little ormolu or gamboge is added to the finishing size. It must, however, be observed that there are several kinds of gold leaf manufactured—extra deep, regular deep, pale, and extra pale, and very excellent effects may be produced by a judicious use of them, bearing always in mind that the pale golds, having a large alloy of silver in their composition, will not stand except varnished. In due course we shall treat of this subject fully.

H. D. A., ALVECHURCH, will find that we have written upon the subject of his letter in our present number.

W. H., OLDHAM.—The question you have put to us is a rather difficult one. You say that the varnish will not dry in summer time under 36 hours, and not at all in winter. We may ask, does it get hard? or, has it any tack on when dry? In this case the non-drying cause is in the varnish itself; possibly it has been made expressly for japanning, or some such class of goods to which great stove heat is applied. We know of no transparent drier which would force the varnish to dry. We are making special enquiries on the subject, and will communicate direct.

HENRY SHANLY,
MANUFACTURER OF
GOLD & SILVER LEAF & BRONZE POWDERS,
30, RED LION SQUARE, LONDON.
PRICE LISTS UPON APPLICATION.





W. Sutherland, Invt.

A. A. Sutherland, Delt.

DECORATION FOR DOOR PANELS.

Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

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"It is one of the affectations of architects to speak of overcharged ornament. Ornament cannot be overcharged if it is good, and is always overcharged when it is bad."—*Ruskin.*

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.

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CHAPTER XI.

PREPARATORY PROCESSES.—DISTEMPER.

WE may also here note a fact which still further shows the necessity for one or two coats of preparation being put upon walls before distempering. It will almost invariably be found that one part of a wall or ceiling will have a greater power of absorbing water or oil paints than another part. This is more clearly seen in using oil than water paints. In every case it will be found, even in the priming or first coat of paint, that some parts will be glossy and some dead—that is, the paint has sunk in or been absorbed in the dead parts, while on the glossy parts it remains on the surface; of course this is remedied in oil painting by successive coats of paint, and some give the walls a coat of clearcole or size to make it bear out equal in the next coat. This difference in surface arises from the unequal finish of the plaster work, some parts having been worked and pressed together with the trowel more than others, consequently a finer, closer, and more homogeneous surface or texture is thus obtained, and into this the oil or water does not penetrate as it will upon those parts not so finished. Now, in using distemper on such plaster work the colour will, as a natural consequence, accumulate on the soft or more porous parts, while it remains on the surface on the well trowelled portion, and thus we get a bad or uneven surface; therefore it is necessary that we should cover such walls or ceilings with a mixture which will equalise the suction. As we have before stated, there are conflicting opinions as to the best methods of preparing both new and old ceilings and walls. We have said that we prefer a mixture of whiting, alum, and size for this purpose, in the following proportions—viz., mix about a dozen pounds of best washed whiting with water to the consistency of a soft paste, add sufficient size to bind the colour fast, and about two ounces of alum, either with or without the same weight of soft soap dissolved in water; mix these well together in a pail—of course somewhat similar proportions will answer for any quantity—and strain through a coarse cloth or metal strainer. This breaks up the whiting and thoroughly mixes the various ingredients together. The preparation should now be tried on paper and dried before a fire or otherwise, in order to test the strength of the mixture and ascertain whether it is fast-bound, so that the finishing colour may be laid on without disturbing the preparations. The alum and soap assist us to gain this effect in a great degree, and form a semi-impervious coating, upon which the finishing colour works cool and without suction, or nearly so. Caution must be observed not to have the size too strong, else it will be liable to chip off, especially in rooms where much gas is burnt or heat evolved. A little suction is sometimes an advantage, but when the suction is great it is almost impossible to make good work. Both new and old ceilings are sometimes painted in oil before being distempered, but on walls, as we have before pointed out, it is not advisable, except under certain circumstances. In preparing old ceilings for distempering, every particle of old whitewash or colour should be carefully washed and scraped off, and made perfectly clean—broad flat scrapers being used on the flats where required—and all holes and cracks stopped up. And here we may note that wherever there is a bad crack in a ceiling or wall it is always the best plan to cut away the plaster for about an inch on each side of the crack, and then plaster up the cavity with plaster of Paris and lime putty. We are thus enabled to make it level with the ceiling on either side, and the jointing will not be perceived when the ceiling is finished; on the other hand, if we merely stop the crack without cutting it away we make a projection, which will always remain an eyesore, because it will almost always be found that one side of a crack—especially in a ceiling—will be lower than the other, and therefore, if only stopped,

must form a ridge, except it be cut out as described. It is, unfortunately, too common a practice with many painters, in treating enriched or ornamental plaster work, to put one coat of distemper after another upon it until the interstices and detail of the ornament become filled up and nearly undistinguishable. This is a state of things which never ought to be, but when it is so it takes much time and expense to remedy it.

Great pains should always be taken and much care exercised in clearing out the accumulation of whiting and colour from ornamental plaster work, and it will be found the best plan to first wash off all the tops of the ornament with plenty of water and a pretty stiff brush. In doing this the sunk parts of the ornament become thoroughly saturated and softened with the water, and in that state all the whiting may be scraped out of the hollows, &c., with pieces of soft wood cut and shaped into the most convenient forms for getting into the various parts. These wooden tools—if we may so call them—do not injure the plaster work as steel or iron would, and the work may be effectually done without injury to it. Small stiff fitches or other brushes will be found useful for washing out the enrichments after being scraped. If this is carefully and effectually done the ornament may be got as clear and sharp as when cast.

All ornamental plaster work should have at the least two coats of oil paint before being distempered; we thus produce a hard surface, which will allow the distemper to be washed off much easier when required; but we prefer to finish ornamental plaster work of any kind in oil colour and flatting, for however careful we may be in painting them in distemper colours, it is almost an impossibility to finish them without filling up some of the finer parts, and nothing looks so bad as ornament thus filled up. The same process of preparation will answer for old ceilings as well as new ones, with this difference—that old ceilings may, and often do, require two coats of preparation.

In finishing ceilings or walls in distemper colour various little matters have to be attended to, such as mixing the colour and laying it on the work so as to secure a good job, for it will often happen that after every precaution has been taken the work will turn out bad. This may, and often does, arise from the colour being improperly or insufficiently mixed. Another great cause is the inequality of surface, proceeding from the colour being unequally spread. In order to produce good work two things are essentially necessary in the mixing of distemper—viz., clean and well washed whiting and clear good jelly size. The whiting should be put to soak in sufficient soft water to cover it well and penetrate into its bulk. When the whiting is sufficiently soaked the surplus water should be poured off, which will carry with it any foreign particles, such as dust, &c. It should then be stirred until all the lumps are broken and it becomes a stiff, smooth paste. A good workman will do this with his hand, and will manipulate it until it becomes quite smooth, but it may be done effectually with a spatula or broad stick. It should then be strained through straining cloth or a metal strainer. The size should now be added and the two lightly, but effectually, mixed together. This size, whatever it is made from, should be used in its jellied state, care being taken to break it well up amongst the whiting, but not so much as to destroy its jelly; this may be done best by using the hand to mix it. In this state the colour will work cool and lay on smooth and level. The size, whether parchment clippings, glue, or other material, should be dissolved in sufficient water to make a weak jelly when cold. In practice we find that jellied size works cooler, easier, and smoother, and makes a better job than when it is used hot; colour mixed on the latter plan works dry, drags, and gathers, thereby making a rough ceiling or wall, and also involves much more labour in working. A little alum added to the distemper has a good effect in hardening it, and helps it to dry out solid and even. When milk is used as a vehicle for distemper skimmed milk or buttermilk should be used. In this case the whiting should be broken up in as little water as possible, consistently with its being properly dissolved or slacked. The milk may then be added in sufficient quantity to thin the whiting to a working consistency. This working consistency will, of course, vary, and no positive rule of proportion can be laid down with any certainty, as it will happen that what would be the right proportion or thickness for one ceiling or wall, may not be so for another. The state of the atmosphere of the room will also affect the question; there being, as a matter of course, a great difference in the working condition of distemper colour on a fine, dry, hot day, and on damp, muggy days, and therefore there is no safer guide than practical experience. But it may be accepted as a fact, true under all circumstances, that the quicker distemper colour dries, after being laid on the work, the more likely it is to turn out well. The best plan to follow in distempering a ceiling or wall is to close the windows and doors, and stop the free circulation of air as much as possible while the colour is being laid on, which prevents its drying too quickly, thus enabling the workmen to lay the colour on more evenly, and with less danger of shewing any pieceings or joinings. But the moment the wall or ceiling is covered, the windows and doors should be thrown wide open, and as much fresh air admitted as possible. This free circulation of dry air absorbs and carries off the moisture. The evaporation is quick, and a good job results, for it is a fact that if distemper (technically speaking) hangs long in drying, it becomes discoloured and shady.

(*To be continued.*)

THE JOURNAL OF DECORATIVE ART PRIZE SCHEME, AND EXHIBITION.

AS intimated in the September issue of our journal, we now give the details of a Prize Scheme, which we trust will not only commend itself to the interest of the House Decorating trade throughout the country, but will elicit from them their hearty co-operation and support. Through the liberality of Messrs. Wilkinson, Heywood, and Clark, and Messrs. J. B. Orr and Co. (The Silicate Paint Company), supplemented by our own gift, we are enabled to submit to our subscribers and the trade generally a Prize Scheme and Competition, with prizes amounting in value to eighty pounds sterling—the largest amount ever offered in prizes for this special branch of trade.

As the *Journal of Decorative Art* was established with the view of spreading a thorough practical knowledge of the house-painting and decorating trades, the proprietors have in the Prize Scheme given prominence, first, to Original Design, as being the most important factor in the success or failure of all decorative works. Secondly, to examples of imitation of woods and marbles, and Thirdly, to the examples of the manipulative processes involved in the production of enamelled and polished surfaces in paint and varnish. It will be thus seen that our Prize Scheme embraces the three great divisions of the house-painting trade, viz. :—

1st, ORIGINAL DESIGN AND EXECUTION.

2nd, GRAINING AND MARBLING.

3rd, THE MOST IMPORTANT MANIPULATIVE PROCESSES.

We hope that the spirit of honest emulation which will be provoked throughout the trade, not merely for the money value of the prizes but for the legitimate and honourable ambition to excel, will be productive of the greatest good in promoting an enthusiasm for the higher branches and walks of the trade represented by this Journal. In drafting the "Scheme" we have endeavoured to meet every branch of the trade which demands the exercise of intelligence and skill, and we trust it will have very important results. We would, therefore, urge upon the employers and others in the house-painting and decorative trades, to bring the matter under the notice of all skilled workmen and apprentices coming within their influence, in order that the benefits of the Prize Scheme may be as widely known as it deserves, to the mutual benefit of all concerned.

It is with very great pleasure and satisfaction that we are able to announce that J. G. Crace, Esq., has kindly consented to adjudicate on the designs and specimens sent in, in competition. We are sure that this announcement will inspire the fullest confidence in the impartiality and capacity of the award.

The Exhibition of the Competitive Designs, &c., will be held in conjunction with the Third Annual Building Exhibition in the Agricultural Hall, Islington, London, N. We have secured ample space in the west gallery of that building, where the designs sent in will be displayed to the greatest advantage. The Exhibition will open on the 20th of March next year, and close on April 1st.

SECTION I.

THE WILKINSON, HEYWOOD, AND CLARK PRIZE. VALUE £35.

CLASS A.

For the best designed and executed original decoration for dining-room door panels, frieze and dado.* Size of door panels, 42 × 14in. and 21 × 14in.; size of frieze, 48 × 16in.; size of dado, 48 × 36in.

FIRST PRIZE	£10	0	0
SECOND PRIZE	7	0	0
THIRD PRIZE	4	0	0
FOURTH PRIZE	2	10	0

***

CLASS B.

For the best (set of three) hand-polished enamelled panels, in light tints. Size of panels, 30 × 18in.

FIRST PRIZE	£3	0	0
SECOND PRIZE	1	15	0
THIRD PRIZE	1	0	0

***

CLASS C.

For the best (set of three) hand-polished varnished panels, in dark colours.

FIRST PRIZE	£3	0	0
SECOND PRIZE	1	15	0
THIRD PRIZE	1	0	0

SECTION II.

THE J. B. ORR & CO.'S "CHARLTON" PRIZE. VALUE £35.

CLASS D.

For the best designed and executed original decoration for drawing-room door panels, executed in "Charlton White." Size of panels, 42 × 14in. and 21 × 14in.

FIRST PRIZE	£8	0	0
SECOND PRIZE	5	0	0

* The frieze and dado can be executed on cartridge paper, painted canvas, or wood.

*

Class E.

For the best designed and executed original decoration in "Duresco," on cartridge paper, for a Reredos. Size of decoration, 60 × 40in.

First Prize	£8	10	0
Second Prize	4	10	0

* * *

Class F.

For the best set of six panels, marbled in imitation of the following marbles: Sienna, Verd-antique, Italian Pink, Rouge Roi, Black and Gold, and Dove. All to be varnished. Size of panels, 36 × 18in.

First Prize	£5	0	0
Second Prize	2	15	0
Third Prize	1	5	0

SECTION III.

SPECIAL PRIZE. VALUE £10.

For the best set of six panels, grained in imitation of Oak, Maple, Pollard Oak, Walnut, Mahogany, and Hungarian Ash. All to be varnished. Size of panels, 36 × 18in.

First Prize	£5	10	0
Second Prize	3	0	0
Third Prize	1	10	0

* * *

CERTIFICATES.

Six Certificates in each Section will be awarded to the most deserving articles of competition.

A list of the names of the successful competitors, with a description of their work, will be given in the May number of this journal.

CONDITIONS OF COMPETITION.

I.—All articles sent in for competition must be specially prepared for this Scheme. Old work will not be admitted.

* * *

II.—All names of intending competitors, and applications for space, to be sent into the Head Office of the Journal of Decorative Art, 1, St. James's Square, Manchester, by the 20th of December. Forms of application for space will be published with the November number of the Journal.

* * *

III.—No application or names will be accepted unless sent in on the printed forms and in the envelopes provided by the proprietors of this Journal.

* * *

IV.—Competitors entering under more than one section or class, must fill up separate forms for each as provided.

* * *

V.—A charge of 2s. will be made for each class of competition entered for, to meet the expenses connected with the exhibition, such sum to be sent to the office with the applications for space.

* * *

VI.—Cheques for the amounts of Prizes will be remitted to the successful competitors, immediately on the decision of the adjudicator.

VII.—No name or names must be attached to any of the competing designs, but a motto or monogram. The name and address of the competitor to be enclosed in a sealed envelope, bearing the corresponding motto or mark on the outside, and securely attached to the design.

* * *

VIII.—All designs to be executed in colours.

* * *

IX.—The Prize Designs to become the property of the proprietors of the Journal of Decorative Art, who will have the right of publishing any of the certificated designs. The donors of the prizes to have the option of purchasing, at a fair valuation, any other designs sent in.

* * *

X.—All articles for exhibition and competition to be sent into the Agricultural Hall, Islington, London, N., by March the 16th, 1882, Carriage Paid. The Proprietors of the Journal of Decorative Art will supply printed labels with the March number of the journal, so as to simplify delivery.

* * *

XI.—All articles sent in to be removed within two days from the close of the exhibition. Country exhibitors must forward directed cards for returning their designs. All panels to be fitted with two rings for hanging purposes.

* * *

XII.—The specimens of graining and marbling must be executed on wood and well varnished.

* * *

XIII.—In the Graining and Marbling Classes no *Machine* work will be allowed.

* * *

XIV.—Classes B, C, F, and Special Prize open to House Painters and Grainers only.

* * *

XV.—On receipt of our order Messrs. J. B. Orr & Co. will supply gratis to each competitor in Section II., Classes D and E, "Charlton White" and "Duresco" sufficient for the competition.

OWEN JONES AND HIS CONTEMPORARIES.

Chapter IX.—Digby Wyatt.

THERE is something essentially associated with art in the name of Wyatt, for since the time of the Stuarts till now there have been men bearing that name eminent either as architects, painters, or sculptors.

The subject of our sketch was born in the year 1820, near the town of Devizes, his father being for many years a magistrate in Lambeth. At an early age he entered the office of his elder brother, Mr. T. H. Wyatt, architect, and identified himself with a profession of which, in after years, he was to become so distinguished an ornament. When he was only sixteen he obtained a prize from the Architectural Association for an essay on some subject connected with his art.

At the age of twenty-five Mr. Wyatt went for a lengthened tour on the Continent, visiting Italy, France, and Germany in the course of his wanderings, and copying the best examples of architecture to be found in the respective countries. On his return he published fac-similes of his sketches. Shortly after this he joined the Society of Arts, and was one of the most ardent promoters of the Great Exhibition of '51. On the appointment of a Royal Commission, he and

five other gentlemen were selected to form the executive committee, a task that they discharged with signal ability and success.

The experience he gained in this field he embodied in an important work, "The Industrial Arts of the Nineteenth Century," which was followed by the production of "Specimens of Mosaics of the Middle Ages," a "Report on the French Industrial Exhibition," and "Specimens of Ornamental Art Workmanship in Gold, Silver, Iron, and Bronze, from the 12th to the 19th Century," this latter work forming in itself a text-book of the highest value for the metal worker. In the preparation of this work he was assisted by many well-known names, prominent among them being Mr. William Burges, who has since become distinguished as one of the most learned of mediæval archæologists of our time. This work is not merely a record of the best work of past ages, but is accompanied with a set of principles and theories, and with a collation of the practices obtaining in different countries, coupled with a history of the arts, that renders it a standard book of reference. Mr. Wyatt assisted Sir M. J. Brunel in the erection of the Great Western Railway Station, and was one of the promoters for the transference of the "Exhibition" building to Sydenham. He, jointly with Mr. Owen Jones, was commissioned to purchase for the "Palace" company a collection of architectural casts, and for that purpose they both travelled on the Continent.

He has left a strong and sterling evidence of his ability in the India Offices, Whitehall, having been engaged by Sir Gilbert Scott to assist in their erection. In 1855 he received the Cross of the Legion of Honour from Napoleon III. for his services as a juror in connection with the Exhibition of that year. At this period he had a very extensive private practice, so that his time was fully occupied. In the same year he was elected Secretary to the Institute of British Architects, an office which he retained till May, 1859. In 1866 he received the Society's gold medal, the highest honour in the profession; and was knighted by Her Majesty in 1869, the year in which he became Slade Professor of the University of Cambridge. He was closely associated with Owen Jones in the production of the "Grammar of Ornament," and wrote the prefatory article on art of the Renaissance period, a style for which he evidently had a strong predilection, and of which he was a consummate master.

His writings are remarkable for their lucidity, clearness, and terseness of expression. Unlike the Oxford "Slade" Professor's, of even greater renown, they are devoid of poetical fancies, and are restricted to the clear enunciation of whatever principles he may be proclaiming, or whatever truth he may be illustrating. Like his contemporary, Owen Jones, he endeavoured to check the license and extravagance in ornament of his day by trying back to first principles, and making fitness and common-sense the basis of his art work. To the influence which he and his friends exercised on English art we may trace no small share of the progress we have made during the interval of time from 1852 to the present. His fame probably rests more on his literary work than on his professional efforts, but whatever we find him doing it is always done with a conscientious regard for thoroughness that elicits our admiration and respect.

He died on May 24th, 1875, at his house at Cowbridge, deeply regretted by many who mourned for him not merely as a clever artist but as a courtly and polished gentleman and sincere friend.

(*To be continued.*)

ON THE MATERIALS AND TOOLS USED BY THE HOUSE PAINTER AND DECORATOR: THEIR PROPERTIES, COMPARATIVE VALUE, AND USE IN THE TRADE.

Charlton White.

Of all the important articles that enter into a painter's shop the first and foremost position must be assigned to that of white lead, or whatever other white pigment may be used, inasmuch as this forms the basis of all subsequent colours or paints.

White lead has for so many years had undisputed possession of the market that any substitute for it is regarded with considerable suspicion and distrust, springing from the prejudice that is apparently directed to any and every new thing when first introduced.

Charlton White now no longer ranks under the category of "new," for under one name or another it has been before the public fourteen years (the term of two apprenticeships), and during that time has established itself firmly wherever it has been fairly tried and tested.

So long ago as 1850 it was suggested that the mutual decomposition of baruim sulphide and zinc sulphate would produce precipitates suitable for pigments; but the matter seems to have remained in the theoretical condition till Mr. Orr patented his process whereby the proper proportion of the zinc base could be chemically combined. This was for a time successfully worked, although only on a small scale, and the first products of the original works at Glasgow went to found the Silicate Paint Company's business. This was in 1874, and from that time to 1879 the sale of the "Silicate Paint" was pushed with considerable energy, if not with corresponding success. From causes which it is not our province to enter into, it was found necessary in the middle of 1879 to

reconstruct the firm, and Mr. Orr was invited to take up the business, which had been transferred to Charlton in Kent. Under the new management considerable improvements have taken place, both in the *modus operandi* of manufacture and in the facilities for producing it.

Mr. Orr has just completed another patent which removes one important objection we have heard advanced against this pigment, namely, that when in the can it apparently disintegrates in fine particles. This objection is more apparent than real, for in application it in no wise detracts from the covering power of the paint. It arose from the difference in the specific gravity existing between the baruim and the zinc, and it is to meet and obviate this difficulty that Mr. Orr has taken out his fresh patent.

The presence of baruim in the original pigment must not be confounded with the baryta used as an adulterant of white paints (chemically the same, but physically a very different body). Yet certain inconveniences arose from its use under the old method:—(1st) It is even yet a disputed point whether or not the sulphate, in common with the other salts of barium, is poisonous; (2nd) It takes on a gritty texture when dried; (3rd) By the great difference of specific gravity between it and the zinc base, the homogeniety of the pigment is adversely affected; (4th) It is temporarily discoloured by insolation. In the new patent, strontium is used, and by its use the before-named objections are obviated.

Hitherto the zinc salts have been drawn from some form of the metal—the favourite source being scrap zinc, because it is cheap and in convenient form for attack by the acid; but scrap zinc is not plentiful, and spelter is too dear.

The new patent concerns itself with the extraction of zinc from waste metalliferous ores, showing a vast economy over the old plan, and tapping a practically inexhaustible supply.

In drawing the attention of the trade to Charlton White, we are prompted by a desire to make them acquainted with a pigment possessing many important and valuable qualifications. In the first place it is non-poisonous (this, in these days of "Sanitary Science," is a consideration of great weight), and in the second place it possesses *covering powers of exceptional value.* We speak from experience of many jobs, and therefore speak confidently. In these times of advanced science, with each day developing new discoveries and fresh triumphs over the secrets of nature, no tradesman can afford to remain ignorant of what is passing around him and affecting his interests, and in thus giving publicity to a thoroughly deserving and *bona fide* article of trade, we are simply doing our duty to our many subscribers and readers. In conclusion we would notify that the Company have taken new premises at No. 46, Cannon Street (opposite the junction of Cannon Street with Queen Victoria Street), E.C., and are having their offices beautifully decorated with their own paints. Master painters when passing will do well to look in and see the artistic capacities of the paints.

Lincrusta Walton,

formerly muralis or the sunbury wall decoration.

WE have on several occasions alluded to "Lincrusta Walton" as a medium suitable for many decorative purposes. With this number we enclose a sheet shewing the character of the material, and its treatment. As explained in our March issue, the substance is composed of solidified linseed oil and fibre, laid in sufficient thickness upon a strong canvas, and afterwards embossed.

As the illustration testifies, it is susceptible to the highest artistic treatment. The designs in the pattern book include dado, friezes, wall fillings, panel decorations, borders, &c., &c.; and one of the latest additions to the stock are some very excellent finger plates—simple, but effective in design.

The Company issue a small well-bound book of designs—photo printed, like our illustration, only on strong paper—the charge for which is 10s. 6d. This book includes all the panel and wall decorations.

For special purposes, such as submitting specimens to a customer, we have no doubt that Messrs. F. Walton and Co. would forward actual patterns of the material itself.

Excellent results can be produced at a small outlay by fixing some of the wall filling designs into panels of doors, and picking them out in colour. Familiarity with it suggests many other outlets, all of them valuable to the decorator, and the reduced price list brings it within easy reach of all good middle-class houses.

Specimens can be seen, both in their plain state and decorated in various ways, at the head office, 9, Berners Street, Oxford Street, W.C., or at the British Architect Museum, Haworth's Buildings, Cross Street, Manchester, where the agent, Mr. Fardon, is in attendance to supply all requisite information. All communications should be made to the works, Sunbury-on-Thames, near London.

The January Number of this journal is now out of print; we are, however, making arrangements for printing a Second Edition. Subscribers ordering this number will therefore kindly understand the reason of any little delay that may arise in delivery. We purpose issuing a limited number of Bound Volumes in the month of December. Orders for same should be placed with the Publisher, or at the Head Office, at as early a date as convenient.

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND REVISED FROM THE HIGHEST AUTHORITIES, ENGLISH AND FOREIGN.

CHAPTER IX.

Tinctures.

IN order to illustrate this phase of the ancient science of heraldry, we here give a diagram, or, as it is called in the language of the olden time, a Paradigm, of the tinctures, astronomical signs, &c., used by heralds in those days, and although to a great extent useless in our day still interesting as curious examples of the fanciful and imaginary side of the subject:—

PARADIGM OF TINCTURES, &c.

Names.	Colours.	Stones.	Planets.	Metals.	Latin Names.	Abbreviations.	Signs of the Zodiac.	Months.	Days of Week.	Elements.	Seasons and Times of Day.	Ages.	Tempers.	Virtues.	Flowers.	Nos.
Or	Yellow	Topaz	Sol	Gold	Aureus	O	Leo	July	Sunday	Light	Noon	Adolescence.	Blithe	Force	Heliotrope	1, 3
Argent	White	Pearl	Luna	Silver	Argenteus	Ar	Cancer	June	Monday	Water	Morning	Infancy	Phlegmatic	Hope	Lily	2, 12
Gules	Red	Ruby	Mars	Iron	Ruber		Aries and Scorpio	March and October	Tuesday	Fire	Autumn	Manhood	Choleric	Charity	Rose	10
Azure	Blue	Sapphire	Jupiter	Tin	Ceruleus	Az. B.	Taurus and Libra	April and September	Thursday	Air	Summer	Childhood	Sanguine	Justice	Blue Bell	4, 9
Vert	Green	Emerald	Venus	Copper	Viridis	V. T.	Gemini and Virgo	May and August	Friday		Spring	Youth	Bilious	Strength	The Field	5, 11
Purpure	Purple	Amethyst	Mercury	Quicksilver	Purpureus	Pur	Sagittarius and Pisces	November and February	Wednesday	Thunderbolt	Evening	Old Age	Serious	Temperance.	Iris	7
Sable	Black		Saturn	Lead	Niger	S.	Capricorn and Aquarius	December and January	Saturday	Earth	Winter and Night	Decrepitude	Melancholy	Prudence	Scabiosa	5, 8

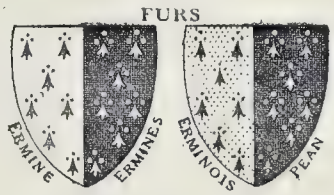
Before armorists had invented the present manner of delineating colour and metals by lines and dots, they used to mark them by the initials and signs, as shewn in the paradigm above; and when a charge was painted in its natural colour it was called proper (as we do still) and marked "ppr." These abbreviations have been retained, and are in common use amongst heralds, painters, and engravers.

Of Furs and Vair.

Born on the shores of the Caspian Sea, on the sides of the Caucasus, and exposed on the cold mountains of Armenia, Tartary, and the other northern regions of Asia, the descendants of the Scythæ and other tribes who opposed the Crusaders wore several kinds of furs, among which, for its whiteness and purity, the skin of the martin or ermine was held in most esteem, and was used as facings and ornament. When the victorious European soldiers of the Cross had conquered the heathen, they carried away as spoils these valuable skins upon their shields, and thus was introduced into heraldic blazon representations of this fur. It is always painted white with black hairy spots, to represent the tail of the animal.

By turning this fur upside-down we have another form of fur which is called Ermines, and is painted

No. 10.



black with white spots of the same shape; and by changing the metal Argent into Or two others are produced, that is, Erminois (which is gold with black spots), and Pean (which is black powdered with spots of gold).

Another fur has also been used by the name of Erminites, in which the two hairs on each side of the black one are red, but this is very rarely used.

Vair. The heraldic forms which go by the name of Vair are a peculiar arrangement of a bell-like form. The origin of this device is not known. Vair is composed of alternate pieces—Argent and Azure, or *vice versâ;* but in general, here as in other cases where the field is covered with small pieces, the metal takes the precedence in colour. If the pieces of Vair are of other tinctures, that must be expressed in blazoning, and then we say Vairy of Or and Gules, Argent and Sable, &c., &c.

No. 11.



Roundels and Guttes.

Shields in ancient times were made so strong that the point of a dart could not penetrate them. The stones hurled by sling or balister did no more than

leave a dint or round embossment on the inner side of the target, and as the bruises thus produced were considered as honourable marks of warfare they were preserved as memorials of many a hard-fought battle. These dents came to be represented by round pieces of metal fixed upon the shield of a contrasting colour to the field, and it often happened that when money was taken as ransom for some fallen chief the coin itself was affixed to the arms to immortalise the prowess of the victor. Hence the origin of the roundels, which are circular pieces, with a distinctive name in allusion to their respective colours or tinctures.

No. 12.



BEZANT

The Bezant is Or (gold), in memory of coins or medals struck at Byzantium (now Constantinople).

ALPHABET OF HERALDIC TERMS.

(Continued.)

BARON & FEMME, used in blazoning the arms of man and his wife marshalled together.

BARRY denotes a field—by which name the face of a shield is called—divided horizontally into several equal partitions of two different tinctures alternately disposed. If the division be odd the field must be first named, and the number of bars mentioned.

BARRY-BENDY denotes a field divided into equal parts both barwise and bendwise.

BATON, a staff or truncheon, borne in English coats of arms as a badge of illegitimacy.

BATTERING RAM, an engine much used among the ancients before gunpowder was invented to batter down the walls of the castles or towns besieged.

BATTLEMENTS, the alternate interstices in the crowning walls of a castle or keep.

BEAKED, this is said of the bills of birds when they are of a different colour from the body.

BEAVER, that part of the helmet which covers and defends the eyes, and often called by heralds *guarde visure—visor.*

BELLED, having bells affixed to some part of the charge—falcons, hawks, &c.

BEND, one of the honourable ordinaries. Bend-sinister is that which comes from the sinister to the dexter side of the shield, and we say "in bend" when figures borne in coats of arms are placed obliquely from the dexter chief to the sinister base, as the bend lies, or *vice versa.*

BENDLET, a diminution of the fourth part or bend.

BENDY, a field divided diagonally into an even number of partitions varying in metal and colour. In English heraldry the number of divisions are always even, in other countries this is not regarded, but when the number is uneven they are called bendlets.

BESANTED means full of besants, and is used to denote a field, ordinary, or charge, covered more or less with besants.

BESANTS or BEZANTS were the current coin of Byzantium, now called Constantinople, and is supposed to have been introduced into coats of arms by the early Crusaders in the Holy Wars.

BILLETS, oblong squares, frequently met with in English coats of arms, from billets of wood.

BILLETY, a field or charge strewed with billets. This expression is used in blazoning billets that exceed ten, otherwise their numbers and positions must be expressed.

BLAZON, to draw or express in their proper colours all that belongs to a coat of arms.

BLAZONRY, the art of describing or blazoning properly coats of arms.

BORDURE, an edging round the shield, which sometimes, chiefly when wavy, serves the same purpose as the baton, *i.e.*, to indicate an illegitimate descent.

BOUTONNÉ, is said of a cross which terminates at each end in three buds or buttons.

BRACED, is applied to two figures of the same sort interlacing each other.

BRITTESSE, a charge or ornament embattled on both sides.

(To be continued.)

OUR ILLUSTRATIONS.



N our present number we give two double pages of illustrations, consisting of a door and architrave and two designs for top and bottom panels for doors. As will be seen, we have, in the latter designs, followed the style of those given in our August number, which have been so much appreciated by our subscribers, and we shall from time to time publish further examples of this class of design as being not too elaborate, but simple and effective, easy of application, and capable of being rendered in a variety of ways, worked up in light and shade, stencilled flat and outlined, or simply stencilled. In carrying out the design with the bird, the small foliage behind the bird should be just seen and that is all, or by adding another spray of leaves both bird and the small leaves could be left out. A very excellent effect may be obtained in stencilling by graduating the tints with which it is worked. By having two or three colours and separate stencil brushes the leaves and flowers may be done of two or three shades of colour on one leaf. When treating of stencils and stencilling we shall enter fully into this matter.

Our second illustration is an example of stained wood in imitation of inlaid woods, exhibited at the Furniture Exhibition held in August at the Agricultural Hall, Islington, by Messrs. Pontifex and Wood, of the Farringdon Works, Shoe Lane, London, and is executed in their celebrated vegetable spirit stains. The door was much admired, and as an example of that particular style of ornamentation is all that can be desired. Many of our subscribers will, probably, have seen it, and, as a practical example of the application of these stains, we have no doubt of our illustration being found useful.

ART NOTES.

The recognition that drawing is now receiving at the hands of public educational authorities may be gathered from the following propositions taken from the Annual Report on Industrial Art Education in the State of Massachusetts, America, for the year 1880. It is interesting to note that the State Director is Mr. Walter Smith, formely of South Kensington.

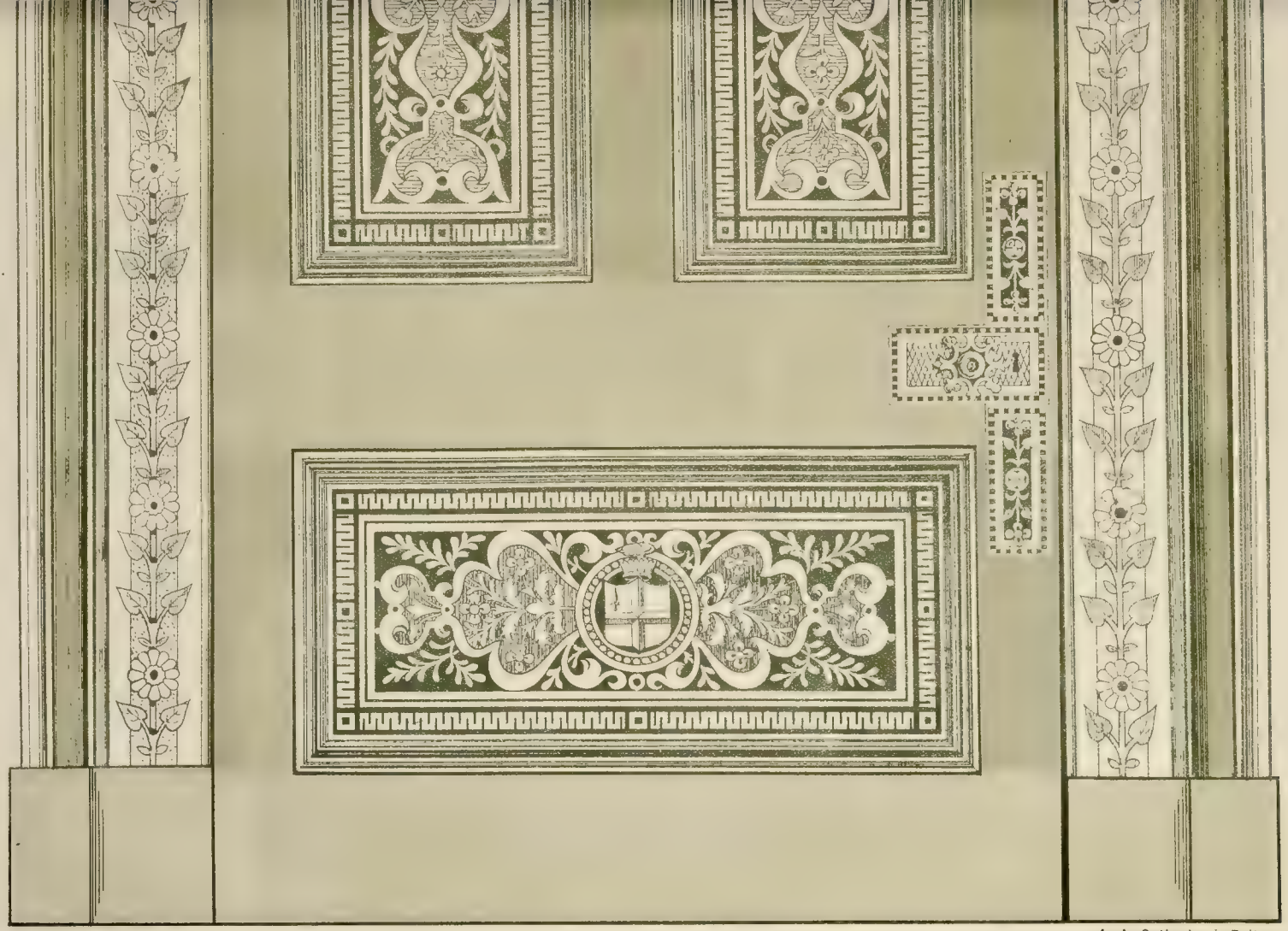
The ground taken up in the propositions is one that cannot be gainsaid. A thorough incorporation of the teaching of drawing as a necessary part of every child's education, would be productive of a much higher state of intelligence throughout the length and breadth of our land; for it is an admitted fact that nothing tends more directly to awaken the higher intellectual faculties of our nature than the habit and power of drawing. We commend the propositions to the careful perusal of all interested in a wider diffusion of art knowledge.

PROPOSITIONS.

1. All children who can be taught to read, write, and cipher, can be taught to draw.

2. Drawing, by the law of Massachusetts, is required to be taught to every child as an element of general education, like reading, writing, and arithmetic.





W. Sutherland, Invt. A. A. Sutherland, Delt.

SPECIMEN DOOR, STAINED IN IMITATION OF INLAID WOODS,

Executed in Pontifex & Wood's Celebrated Stains, and exhibited at the Furniture Exhibition, Islington, August, 1881

3. As an elementary subject, it should be taught by the regular teachers, and not by special instructors.

4. The true function of drawing in general education is to develop accuracy of perception and to exercise the imagination, thereby tending to produce a love of order and to nourish originality.

5. Educationally, drawing should be regarded as a means for the study of other subjects, such as geography, history, mechanics, design. In general education it is to be considered as an *implement*, not as an ornament.

6. The practice of drawing is necessary to the possession of taste and skill in industry, and is therefore the common element of education for creating an enjoyment of the beautiful, and for a profitable practical life.

7. In the primary, grammar, and high schools, drawing is elementary and general; in the normal and evening schools, advanced and special—for teaching purposes in the first, and for skilled industry in the second.

8. Good industrial art includes the scientific as well as the artistic element; science securing the necessity of true and permanent workmanship, art contributing the quality of attractiveness and beauty. The study of practical art by drawing should therefore comprehend the exactness of science by the use of instruments, as in geometrical drawing and designing, and the acquisition of knowledge of the beautiful, and manual skill in expression, by freehand drawing of historical masterpieces of art and choice natural forms.

9. Drawing may now, therefore, take its legal place in the public schools as an element of, and not as a speciality in, education, at as little cost as any other equally useful branch of instruction, with the prospect that at a future time as many persons will be able to draw well as can read and write well, and as large a proportion be able to design well as to produce a good English composition.

The famous "Sanitorium" at Virginia Water, erected at the sole cost of Mr. Thomas Holloway, is now rapidly approaching completion. It is probably unique as a decorated building. Everything has been done that thought and ingenuity could suggest to relieve the mental distress of the patients when they come to occupy it.

To this end, the Hall, that had been finished in the native colour of the stone, has since been painted and decorated in colour and gold, with an almost barbaric splendour. This idea permeates the entire building—brightness, attractiveness, cheerfulness—all with a view to abstract the minds of the afflicted inmates from dwelling on their troubles.

Mr. Holloway does not let his beneficence rest here, but in building and endowing the College at Mount Lee for the higher education of women, he displays a discrimination equal to his generosity.

This Palace, for we can call it nothing else, forms a quadrangle, 500 feet from east to west, and 350 feet from north to south, and stands in grounds extending over 95 acres. The contract, *exclusive of fittings*, is £257,000. To cater for the intellectual necessities of his future students, Mr. Holloway is forming a collection or "gallery of gems." Fourteen pictures are already bought at an aggregate cost of £32,690 10s., the highest costing £6,615, and the lowest £273. With such a stupendous endowment and outlay, our fair friends cannot henceforth plead that they are neglected.

The galleries of the Royal Academy, Burlington House are now being redecorated by Messrs. Holland and Sons, under the directions and from the designs of the Royal Academy Surveyor, Mr. R. Phené Spiers, F.R.I.B.A. The cornice is to be ornamented in its frieze with stencilled patterns, rather arabesque in character. The general wall colours, we believe will be carried out as before.

An exhibition of artistic productions was recently opened in Lyme Hall, Cheshire, the object being to raise funds for the enlargement and improvement of the organ of Disley parish church.

The Liverpool Autumn Exhibition of Pictures, now open, appears to be one of exceptional interest. Works by Briton Rivière, Sir John Gilbert, Yeames, Wells, Holman Hunt, and Alma-Tadema are included. A large picture by Mr. D. G. Rossetti, entitled "Dante's Dream," has been purchased out of the exhibition by the Corporation, and will be added to the local permanent collection.

The Autumn Exhibition at the Royal Institution, Manchester, is of more than usual interest. A feature of considerable attraction being the Graphic Gallery of Beauty—or types of beauty.

Now that the Corporation have taken over the Institution for the purposes of an Art Gallery, we may confidently look forward to a great stimulus being given to local art.

Rumour was busy last month with an International Exhibition, to be held next year in Manchester, but it must have been a creation of some one's fevered fancy, for Manchester folks dont seem to know much about it.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

BY THE EDITOR.

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Chapter XI.—Mahogany.

IN relation to mahogany a writer in the *Building News* relates an anecdote of its first introduction into this country. He says that Dr. Gibbons, of King Street, Covent Garden, having received a few planks of this wood from his brother, a sea captain, in 1724, had some of the wood —which had been previously rejected by a builder as worthless—made into a candle-box by a cabinet-maker named Wollaston, who, recognising the fine quality of the material, used the remainder in some furniture. This caused a demand for it to spring up, and he is said to have realised a large fortune by its use. The writer also says that Messrs. Broadwood, the eminent pianoforte makers, once gave £3,000 for three logs of curled Spanish mahogany, all three being cut from one tree. Each balk was 15 feet in length, and 3 feet 2 inches square; this would give 451 cubic feet, being at the rate of £6 13s. per cubic foot, the exceeding beauty of the curl giving it the extraordinary value.

In imitating the curl or feather of mahogany much practice will be required to produce a good imitation. The curl of mahogany is one of the most beautiful forms nature displays in any wood. It is graceful in the flow of its veins, splendid in colour, and its lights and shades, and all its markings have a bright silky reflection which is very pleasing to see. In graining it we use the same colours as before described, and cover the panel with a middle shade of the graining colour; then take a broad, flat fitch, or tin tool, and fill it with colour of the darkest shade intended for the panel. With this we commence at the bottom of the panel, and mark in a succession of curves, one rising above another, and gradually decreasing in size as we near the top. These must be so done as to leave a light and dark curve alternately. This being completed, we take a fine hog-hair cutter, or a camel-

hair mottler, and cut out the lights or mottle springing from the centre of the curves, and spraying from the centre outwards, as we see it in the real wood. Both cutter and mottler must be washed with water, and partially dried on the wash-leather again and again while cutting out the lights. When the lights are cut out, which is best done quickly, the whole must be gently softened with the badger, moving it up and down, which will soften and blend the whole together. We now take the fine cutter, wet it, and cut out the sharp, bright, high lights or reflections as we see them in nature. In taking out the lights they should have a slight serpentine curve, and not straight. The space on each side of the curl should be somewhat plain in its markings and light in colour. This puts the darkest part in its right place, and gives more effect to the curl. When the graining colour is thoroughly dry, we again wet it all over with a mottler and clean water, and while wet we put in the darkest touches in the centre of the curl, and with the damp wash-leather over the thumb nail, take out the fine bright lights and streaks in the curl. By this method we produce a silky-soft effect not to be obtained by any other means. We now proceed with the overgraining as before described, but in this case we work the overgrain on the same curves as the curl. In using the overgrainer it should be held in a slanting position at the side of the curl, and gradually opening wider as it gets to the centre; and while it is wet, the effect is improved if we slightly badger it upwards in the centre of the curl. If properly done, we shall thus form a dark and a light line just as it appears in nature. The panel should now have a thin coat of varnish, and when this is dry, it will be ready for glazing. In glazing mahogany we have two objects to gain, viz., to enrich and vary the colour, and to put in the pores of the wood. With care this may all be done without the varnish, but is better done upon it. The glazing may be done either in distemper or oil colour. We prefer the first plan. If we want an exceedingly brilliant colour, we must glaze with Victoria lake alone, but for a quiet, rich colour we use Victoria lake and Vandyke brown, adding here and there a little blue-black, which serves to give additional richness to the whole, just as a cold colour in contrast with a warm one gives an appearance of greater warmth to the latter. In working we use the glazing colours with very weak beer and water, and brush it on the panel with a hog-hair mottler of just the strength we desire, and soften and blend the whole together; if it requires it, and we can see where we can improve the work, we go over the overgrain with a pencil and colour, and also put in any darker shades in the curl. When this is dry, we take a round badger-hair softener, dip the ends of it into colour, and gently stipple the panel all over, using only the extreme ends of the hair. This leaves fine touches of colour, which must be softened with a straight up and down motion. If properly done, we get an exact resemblance of the small pores of the wood, which helps to make a closer imitation, the pores may be admirably imitated by using a roller similar to the oak overgraining rollers described in a former issue. We may point out here that much of the success of this or any other imitation of wood will depend upon a judicious use and contrast of plain, or comparatively plain, parts with the curl or richly mottled parts. It is a common mistake with grainers to cover the whole of their work with elaborate markings, which not only overcrowds it but ruins the whole effect. If we study the real wood, we shall find that nature never makes this mistake, but contrasts the one with the other, and thus enhances the beauty of both.

Baywood.

Baywood is a kind of mahogany closely approaching cedar in its nature, but having all the characteristics of the richer-coloured wood without its beautiful mottle or curl. It is much used in cabinet work, railway carriage building, and also in ship work, the Queen's own steam yacht, the Victoria and Albert, being built of it. Its grain is almost straight, and its mottle, when there is any, very fine and small. Its colour is the same as other kinds of mahogany, but not so dark. In graining it we use the same colour as described for the other kinds, and in working we first damp down, then brush on burnt sienna and a little Vandyke brown pretty freely and light in colour. We now take a broad fitch, dip it into dark colour (that is, as dark as we require it), and put in the dark streaks, giving them a slight curve. We then take a three-inch hog-hair mottler only just damp, and using the extreme end of it, place it flat at the top of the panel, and with a very slight pressure draw it down over both light and dark streaks: this will blend the two into one another and also form a grain. We now take a fine cutter or camel-hair mottler and cut out a few fine lights with it across the dark parts, then lightly soften across the grain. When dry it may be overgrained as before described. Another method of graining this wood is to rub over the panel with the darkest shade of colour, then take a wet sponge and draw it down the panel, which takes off the colour in streaks; then draw down the broad mottler as before described, and put in the lights or fine mottle, and overgrain. This kind of mahogany will require the pores to be put in in order to make a good imitation, and in this case it may be done while the graining colour is wet by stippling with the end of the badger-hair softener. If done lightly and properly, the tool will take up a portion of colour off the dark parts and leave it on the light ones, and thus the panel is covered.

Satin-Wood.

Satin-wood derives its name from its beautiful satin-like mottle or grain. Its lights and shades alternate with the different positions in which it may be held or placed, just exactly as a rich satin dress will reflect the light on its many folds or doublings. Satin-wood is the produce of a tree of the cedar tribe (*Chloroxylon Sweitania*), growing on the mountains of the Circars in India, and in Ceylon; and in point of size and durability is by far the best of the timber trees of Ceylon. The richly-coloured and feathery logs are used for cabinet work, and the plain for building purposes, every house in the eastern province being floored and timbered with satin-wood. The curls and mottle of this wood bear such a striking resemblance to that of mahogany that, except for its colour and a few other small differences, the one might be easily mistaken for the other. This being the case, we need not here occupy our space with describing the graining process, as it may be done in exactly the same way as mahogany in the mottle and feather or curls. The ground for satin-wood should be almost white, slightly tinged with yellow—Oxford ochre is best, or a little chrome and vermilion makes a good tinting colour, the graining colour being principally raw sienna with a little Vandyke brown added, and overgrained with raw sienna and a little burnt sienna added. We would, in regard to this wood, urge upon the student to take all the precautions as to cleanliness in working spoken of in our instructions for graining maple. This quality is indispensable to the making of a good job, more especially in these light, clean-looking woods.

(To be continued.)

SPECIFICATIONS.

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In making out a Specification for work to be done at an old house, the difference between it and the one we have given lies more in the preparatory processes required than in the finishing; but these preparatory processes, if properly carried out, involve a very considerable expense, consequently much more care is required in specifying what really has to be done and how it has to be done. Very much of this kind of work is not seen when finished, as it is buried under the finishing coats, and it often happens that those who pay for its being done cannot understand how and where the labour has been bestowed; but if what is going to be done is clearly expressed, annoyance may thus be avoided.

For our second illustrative example of what a Specification should be, we will take an old house of a somewhat higher class than the new house we have already described. We will suppose that the house has been painted and repainted for a long series of years, and has an accumulation of paint upon its woodwork, and of colour on its ceilings and cornices, that its walls have been papered and repapered, and the whole house in a bad condition, such as we often experience.

DRAFT OF SPECIFICATION of Works to be done at.....
.....House, for J.....Esq.

DINING-ROOM.

Preparation. The ceiling, cornice, and centre flower to be washed off clean, all cracks and holes to be stopped up with lime putty and plaster-of-paris, and rubbed down level with the general surface, all the enrichments on mouldings of cornice, centre flower, and other parts to be thoroughly cleaned out, and all accumulation of whiting and other matter to be removed from the quirks and sunk part of enrichments.

The ceiling and cornice to be prepared and distempered. (If the ceiling is a very bad one, specify for covering it with lining paper before distempering it.)

Ornament on Ceiling Tints in Cornices. Members gilt. A stencilled ornament, of appropriate design, to be put upon the flat of ceiling with centres and connecting lines.

State the number of colours to be placed in the cornices and centre flower, and the parts to be gilt.

Walls. Old paper to be stripped off clean, walls washed down, all cracks and holes made good, lined with best white lining paper, value 1s. per piece, and finished with paper to be selected of the value of 12s. 6d. per piece, or (after the preparatory processes) stopped, prepared, and painted five coats of the best oil paint. The upper portion of the wall to be finished a warm tint of a neutral green shade, flat or dead.

Dado. A dado of suitable design to be painted and stencilled on the lower portion of the wall, 2ft. 6in. above the skirting. This can be either a simple geometrical diaper, or thrown into panels and stiles with special subjects in each: whichever it is to be it should be specified. A border of a character to harmonise with the dado to be stencilled on the dividing line. The whole to be twice varnished with best copal varnish, and cut down between each coat with ground pumice-stone and water.

Woodwork. Woodwork to have the old paint stripped off clean to the wood, well cleaned, sand-papered, knotted, stopped, and painted four or five coats of the best oil paint, finished in low-tone colours to harmonise with the other decorations, the panels and portions of the skirting left flat or dead, and the stiles of door and shutters and the projecting portions of the skirting to be varnished two coats of the best copal varnish.

Decoration. The panels of the door to be decorated with a design appropriate to the character and purpose of the room—fruit, &c., &c. The panels of the shutters to be finished in keeping with the door, but in a simpler manner.

Gilding. One member to door, architrave, window, and skirting to be prepared, sized, and gilt with the best English leaf gold; or (after the preparation and painting) to be grained in imitation of pollard oak (panels), and plain oak (stiles), and twice varnished. Mouldings to be relieved with black, in imitation of ebony, and a line of gold introduced.

DRAWING-ROOM.

Ceiling and Cornice. The description for the dining-room is equally applicable here, unless there is to be some specific *decoration* in either room, when the wording must be modified to meet the exigencies of the case. A little more gold may with propriety be introduced in this room.

Frieze. A paper frieze, 15 or 18 inches deep, to be placed immediately underneath the cornice, of a design to harmonise with the paper.

Picture Moulding A picture moulding to be fixed on the dividing line of wall and frieze. (The cords of a picture should never *cross* the frieze, but always be underneath it.) We don't like to see dados in drawing-rooms, but prefer a deep frieze.

Woodwork. Woodwork to be well rubbed down (stripped, if necessary), stopped, prepared, and painted three coats of the best oil paint, finished a suitable tint of colour. The panels to be left flat or dead, and the stiles to be finished in enamel or varnish colour.

Decoration. The panels of the door to be decorated with a design of flowers representing the Seasons, or with figures symbolical of the arts, music, painting, &c.

Walls. Walls to have all old paper carefully stripped off, holes made good, prepared, lined with best white lining paper, value 1s. per piece, and finished with paper to be selected of the value of 15s. per piece—or painted five coats of the best oil paint, finished flat or dead. Each wall to be divided into panels and stiles, one, two, or three, as the size of the room will admit, with gilt composite corners connected with gold mouldings. The inside of the panels to be decorated with a stencilled ornament in character with the other decorations of the room.

(To be continued.)

Trade Intelligence.

We understand that Messrs. Crowden and Garrod, of Falcon Square, the celebrated brush manufacturers, are erecting spacious and handsome premises in Southwark Street, Borough, to meet the demands of their continually increasing business. This is evidence of the sort we are always glad to see, and we trust that this testimony to the value of the business done by Messrs. Crowden and Garrod will never be wanting.

Visitors to London from the provinces are often struck with the care expended in the preparation of painting, even for outside work. Whether it is that provincials cannot get money sufficient to allow for this preparatory work or not we cannot say, but certainly, as far as our experience goes, it is not done.

We know where the weak spot is. Speak to a tradesman, and he tells you at once that the prices to be got for the work will not allow any time to be spent in preparation, and that such is the case we are quite conscious, but none the less do we deplore it.

A Glasgow employer, commenting on this very point the other day, said: "Why, you must spend as much on the 'preparation' as we get for the entire job"—a confession that revealed volumes.

In nine cases out of ten outside cemented work in the provinces is never washed, the rough passing of a duster over it being considered sufficient. As a consequence the first coat of paint is usually a dark, dirty lead colour, the result of the dirt working up in the paint. As a matter of course, when such is the case, there cannot be the lasting qualities in the paint as when all the dirt is removed prior to painting.

As we have before pointed out, the fault can be brought home to the doors of the trade; for were respectable firms to set their faces against this excessive paring down of prices they would soon have the question altered.

London, W., has been busy the last two months. When "London goes out of town" then the harvest of the trade commences. The clubs and theatres have been in the possession of the painters and decorators, and are putting on their new apparel.

Altogether the season of 1881 has been but an indifferent one, there was never any time when men were not to be had, a safe index that "the good time coming" is still in the future. We certainly need the "magic of patience" in our waiting for it.

Mr. H. C. Bevis has forwarded to us his "Builders' Price Book," a little work that seems to cover very adequately the ground it professes to do, a compliment that cannot be paid to all works of a like character. Tradesmen will find it very useful as a book of reference. The price of it is 3s.

Answers to Correspondents.

All questions should reach the office not later than the 15th of the month, so as to ensure being answered in the succeeding number.

J. C. Westleigh.—We shall in due course give a description of the numerous methods of gilding. But in answer to your question, we would reply that in order to make good work in oil gilding there are several indispensable conditions which must be observed. First, a smooth ground. Second, gold size free from grit or skins. Third, in putting oil gold size on the work, it must be rubbed as bare as possible. No good gilding can result if too much size is laid on. Fourth, in gilding the gold is always laid on best with the tip and cushion; if it is laid on with the book it is almost sure to be shady. If our correspondent will be careful to follow the above rules strictly, he must succeed.

"Distemper."—A correspondent says that he has used Hudson's Dry Soap instead of soft soap in mixing the preparation for distempering upon, and has found it to answer the purpose much better than the latter. We have not tried it ourselves, but will do so, and give our readers the result of our experience in the matter.

[We take this opportunity of saying that although (as our readers will see) we have had as large, as varied, and as extensive an experience as most men, we shall always be glad to receive and chronicle the experience of those of our subscribers who have been in the habit of using any different material, or adopting different methods or processes for the attainment of the results described in this journal. We describe nothing but what we have ourselves proved and found to be in our experience the best. But we do not for a moment presume upon this to say that the experience of others may not have led them to results equally successful by other means than those we describe; consequently, we shall always be glad to receive such communications as that of our correspondent.—The Editor.]

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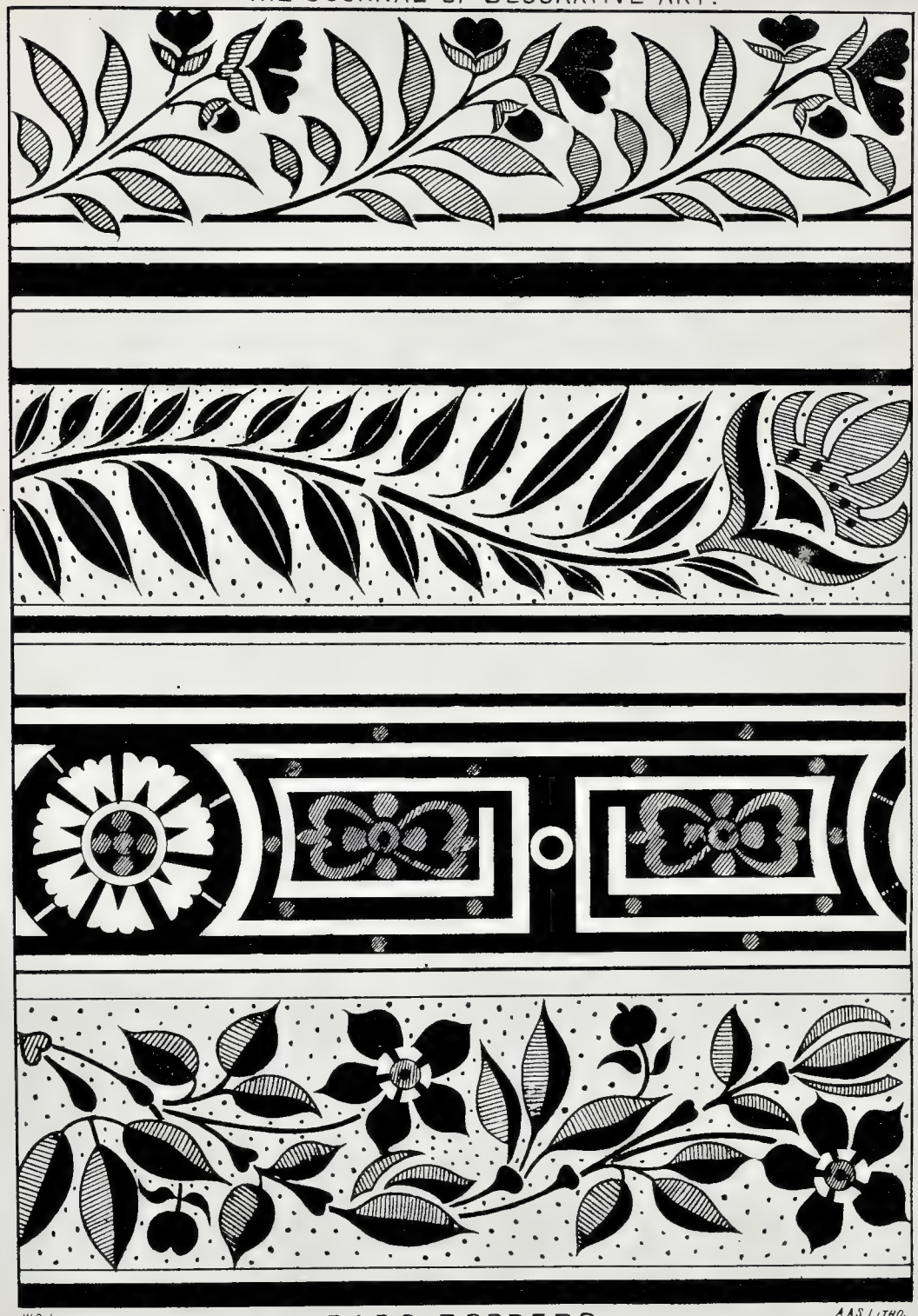
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"It is one of the affectations of architects to speak of overcharged ornament. Ornament cannot be overcharged if it is good, and is always overcharged when it is bad."—*Ruskin.*

JOURNALISTIC ENTERPRISE.

IN our September number we had occasion to speak on the question of Copyright. We had good cause to do so, inasmuch as in the month of August two journals (one now defunct), viz., the *House Decorator and School of Design*, and the *Oil and Colourman's Journal*, had inserted in their respective papers matter that was copyright of our own. The "House Decorator" was ostensibly copied from "an American contemporary," but when asked "for the journal they copied from," the proprietors took refuge in an ignoble silence. The *Oil and Colourman's Journal* unblushingly copied an article which appeared in our February issue, on "Duresco," without any acknowledgment of the source from whence it came, or indeed, that it was a quotation at all.

The Plumber and Decorator was also guilty of a similar act in a previous number of their journal, and printed an article on "Coloured Decorations" (without any evidence of it being a quotation), from matter we contributed to the pages of the *Building News* some years ago, the copyright of which still belongs to us.

The past month witnessed another raid into our territory. The *Oil and Colourman's Journal* thinks it the right and proper thing to do, to open, under the heading of "Editorial Notes," with a verbatim extract from our May issue—still without acknowledgment—on "Non-Blooming Varnishes;" while the *Plumber and Decorator* has again to take refuge in our contributions, and publishes this month (October) three columns of an article on "Imitation" which we wrote for the *Building News*, but which they attribute to the *American Cabinet-Maker*.

However flattering this attention to our efforts may be, we are somewhat reluctant to provide (gratis) brains for two or three journals, who make great pretentions in the way of the obligations they confer on the cause of art (!) and the trade generally. We are sorry, too, at being thus compelled to give them a free advertisement, but think it due to ourselves, and to our numerous readers and subscribers, that they should know at what enormous sacrifices *some* of their literature is provided.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.

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CHAPTER XII. — DISTEMPER.

IN laying on distemper on walls and ceilings, one great point to be attained is to produce a level and uniform surface when dry; and this desirable result can only be obtained by the colour being laid on evenly and of a proper consistency. Some workmen make a practice of laying off the colour upon a ceiling across the light, in straight even lines; others, again, are in favour of laying off in the direction of the light, that is, from the window towards the opposite side of the room, as they thereby avoid any shadows produced by there being more colour in one part than another. But in practice we find that the best work is produced on ceilings by laying off the colour any and every way, and not in straight lines; and it really does not matter in what direction it is laid off if it is only laid level and even, having no more on one part than another. This may easily be done if the workman (after having put a sufficient quantity of colour upon the part he is working upon) will spread it well, and then lay off gently with the ends of the brush, and herein lies the difference between a good workman and an ordinary one. One will lay off the colour so lightly, and consequently so evenly, that no marks of the brush will be seen, while another workman, who may be assisting him, will use his brush with a heavy scraping motion, in laying off, consequently his portion of the ceiling or wall will look streaky, or show light and dark lines with every streak of the brush, while his fellow workman's portion will look even and solid as a sheet of paper. It follows, therefore, that no large surface can be coloured in distemper with a thoroughly successful

result unless each workman endeavour to avoid the streaky, scraping action in finishing described above. Another point requiring attention is the necessity for laying on the work an equality of colour. Some men will work with a full brush, while others seem to be trying with how little colour they can do the work, consequently there results two different surfaces of unequal solidity. Another cause of this inequality is the fact that while one man will lay on a breadth of colour, and will spread and finish it with little labour, and in little time, another will keep on working at it until the colour begins to set and dry at the edges, and so the work is spoiled. Thus it follows, in view of the foregoing facts, that for a successful job of distemper work, the colour must be spread evenly and equally, and laid off with an equal pressure on the entire surface.

If after a ceiling or wall has been finished in distemper, it turns out bad or unsatisfactory in any way, it is a waste of time and labour to attempt to tinker or patch it up by going over it again; the only safe plan is to wash it off at once, and start afresh. This will be found not only the best but the cheapest by far. We have invariably found, whether it has been in oil paint or distemper, that all attempts to rectify an error by rubbing up with the colour have resulted either in entire failure or, at the best, in a poor job, and have cost double the amount of labour and consequent expense than if it had been washed off and done again. To find out the cause of the failure, and to avoid it in the future, is the only sensible course to take, for, as we have before said, all these failures proceed from some simple cause which may by a little care be avoided or cured.

In distempering both new and old walls or ceilings, it is often a wise plan to cover them with good lining paper. This plan will in almost every case insure a good job. On old walls it serves to cover up and hide various small defects which could not otherwise be done except by hacking and skimming the walls over. The paper stretches over the small holes and slight inequalities, and thus makes a level and even job. One coat of distemper upon the paper will in many cases suffice to make a good job. This is especially the case if we decide upon the exact colour we intend to finish the work. We can then line the walls with the tinted lining paper, of which almost any colour can be obtained; and we are always more certain of making a good job if the colour of the lining is somewhat near the finishing colour, just as in flatting we have the oil paint, upon which the flatting has to be placed, as near the flatting colour as possible, it being in that case less liable to "grin" or show through the flatting. It is also in many cases a necessity to paper with good stout lining paper walls that are intended to be finished in oil paint or flatting. When this is done, the paper used should be the best quality of wide lining paper (30-inch), there being, of course, fewer joints than when the ordinary width of paper is used. These joints should be carefully butted, and afterwards filled up with distemper filling, and when dry rubbed down. We have also found that if in hanging the paper we overlap a very little, and when dry rub the overlap away with sandpaper, with cork or wood inside it, we can make an almost imperceptible joint, perfectly level and smooth.

There is a species of distemper very much used in the United States called "Kalsomine," and the operation of using it is called "kalsomining." It is principally used in the form of a white-wash, but may be made into a colour wash by adding suitable staining colours, which must be such as will be unaffected by the action of lime, of which the kalsomine principally consists. We give here the method of mixing, and its component parts. The relative proportions must of course be kept, whether larger or smaller quantities are mixed than those here given. Slake half-a-bushel of quick-lime in boiling water, but while it is being slaked it must be covered up, so as to keep in as much of the steam as possible, and when properly slaked it must be strained through coarse wrapping or a fine sieve. A peck of common salt must now be added to the lime, and three pounds of good rice, ground into a fine paste, and mixed with the lime and salt while they are boiling hot. Add five gallons of hot water, one pound of melted glue, and a little best washed whiting. The whole must be well stirred until it is thoroughly mixed together. The mixture should now stand for three or four days to allow of chemical action taking place. When wanted for use it must be heated again, and used as hot as possible, in thickness about that of cream. It is said that this mixture is exceedingly brilliant and durable, and will keep its brightness for a number of years. Whether it would do so in our humid atmosphere, we have no means of knowing; but the air of America is dry even in winter, which fact very materially alters the conditions. Ordinary distemper would no doubt last a very much longer time in America than it does here. However, we give the description for what it is worth.

We have in a previous number of this journal spoken of the new washable distemper called "Duresco," also a Silicate distemper. We have had very considerable experience of the working of the Duresco, which, while adding to our knowledge of its admirable qualities and capabilities, confirms all that we have before said about it. If properly used and worked it produces a surface unequalled for deadness (*i.e.*, absence of gloss) and uniformity.

There is an extensive and varied range of colours which may be used in tinting distemper, and there are

also certain colours which cannot be used on new walls without being affected by the action of the lime in the plaster. Chrome yellows, or any greens that are made with chromes, or have chromes in combination, cannot be used, in any case, when lime is present, as the lime destroys the green, and causes it to fade directly. If any of these are used, the walls would require a coat of paint first. But we need not go to that trouble and expense if we will be content to discard bright greens. Any of the bright clear ochres mixed with lime-blue make a variety of shades of green of a mild, sober hue, much pleasanter to the eye, and in better taste, than the bright chrome greens; for with the latter, when used in large masses, there is a glare and oppressiveness very offensive to good taste, while the former have a quiet richness which is seldom or ever out of harmony with anything that may be placed in contrast with it. By adding Indian red or black to these greens, we may produce an endless variety of suitable tints for wall coverings; and all this class of colours made from lime-blue, Indian red, ochres, and umbers, will stand or keep their colour on new walls when in contact with lime. Stone colour, and drabs of all shades and hues, may be made for distemper work from Indian red, ochre, lime-blue, blue-black, burnt and raw umber, and burnt sienna. All these colours, or tints of colours, will be bright or warm as the yellow or red preponderates, and warm or cool in tone as the blue-black or red is in excess of the others. Messrs. Manders Bros., of Wolverhampton, manufacture a number of very beautiful colours, specially prepared to meet the necessities of distemper work, and as they are made on a lime base, they are admirably suited for new work. Having used them, we can vouch for their sterling worth.

It will sometimes happen in working distemper colours that all our calculations are set at nought by some peculiar property or chemical matter contained in the sand of which the mortar is made, and with which the wall is plastered. The usual effect is to cause the colour to fade in patches, or small spots of a brown colour to appear on the surface. In other cases, a sort of mould will form on the surface, or an efflorescence of a white colour, in the form of minute crystals, will appear. When the wall is affected in any of the above-named forms, there is no cure for the evil but in either giving it a coat of oil paint, or covering it, as before named, with lining paper, and even this does not always answer the purpose. A coat of patent knotting will perhaps be better than the paint, as it forms, when dry, a very hard substance, through which it is difficult for these stains or other matters to force their way. Sometimes discoloured bricks will stain the plaster right through its substance and appear on the surface. We have seen this effect produced even when the wall has had three or four coats of paint. In these cases two or three coats of knotting should be used.

In finishing cornices in colours we have found it the best plan to prepare it as before described, and then coat over the whole with a thin coat of pure white well bound with size. Upon this we lay our tints. We thus obtain a pure ground colour, and those parts which are to be left white are much purer and better than if they were put in singly. We are also enabled to cut in the various tints with a much clearer and sharper edge on this plan, whereas, if we put the tints on the preparation without whitening first, we get into difficulties at once, inasmuch as it is not possible to cut in the white and the other tints near so sharp, and they will, of necessity, not be so pure. A friend, of large experience in these matters, has informed us that he has made a practice of preparing ornamental plaster work with milk alone, and has found that method very successful in preserving the sharpness of the ornament. He gives the work one or two coats of pure milk, which stops the suction. He then mixes his colours with milk, and picks them into the ornament; and he tells us that he has found it to answer admirably, as he is able to paint the finest enrichments with a clearness and sharpness of outline almost equal to oil paint. When the back grounds, or interstices of the ornament, have to be painted in of a dark colour in distemper, it ought to be done first before the ornament itself is touched, and the workman should carry a sponge with him to wipe off any of the dark colours which may have got on the face of the ornament. A can of clean water, a sponge, and a little care will save much after labour, and will assist to make a clean, sharp job at the finish.

Ceilings often require to be cleaned up, or re-whitened, for a temporary purpose, which will not allow time for washing them off and preparing them in the usual way. In these cases it is the best plan first to brush off the dust, &c., then go over it with pure water, and, while it is wet, follow on with a medium coat of whiting and size, stained or tinted to the same colour as that with which it was originally done. Of course this can only be done once, as it tends to an accumulation of stuff on the ceiling, which must be cleaned off the next time it is done, or else it will be liable to chip and blister. We recommend this plan only under exceptional circumstances.

(*To be continued.*)

"Just now all sensible people like to make the houses they live in as pretty as possible, and an 'Illustrated Technical Journal for the House-Painter and Decorator, and all Art Workmen,' seems to me to be the very thing wanted. Such a work, admirably conducted in all respects, is published, in sevenpenny monthly parts, in Manchester. The chromo-lithographs, which it contains, are excellently well executed, and most of the designs in the very best taste. I recommend all Judy's readers to consult the *Journal of Decorative Art* before having in that paper-hanging man from round the corner."—*Judy*, October 19th, 1881.

OWEN JONES AND HIS CONTEMPORARIES.

DIGBY WYATT. (A CORRECTION.)

IN our last issue we inadvertently did an injustice to the memory of the late Sir Digby Wyatt, in regard to the building of the Indian Offices for the Government. Our attention has been drawn to the mistake by J. G. Crace, Esq., whose letter to us in regard thereto we print below. We take the opportunity of thanking Mr. Crace for setting us right in the matter.—EDITOR, J. of D. A.

To the Editor of the Journal of Decorative Art.

SIR,—In your journal for this month you give a memoir of a very talented man, the late Sir Digby Wyatt. But in your mention of him in reference to the Indian Offices, Whitehall, you have made a serious mistake. Sir Digby Wyatt was not employed by Sir Gilbert Scott, but was the appointed architect of the Council of India, and was commissioned by them to design and superintend the building of the Indian Offices. Sir Gilbert Scott was the architect of the adjoining building for the Foreign Office, which, though in the same block, was quite separate from the building of Sir Digby Wyatt. It should be known that Digby Wyatt as a young man longed to visit Italy; he worked with the greatest assiduity, and lived with the severest economy, till he saved enough money to accomplish his desire. Sir Digby Wyatt was a dear old friend of mine; I appreciated his talents and I loved the man. This is the reason of my communication.

I am, sir, yours faithfully,

38, Wigmore Street, W. JOHN G. CRACE.
October 15th, 1881.

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND REVISED FROM THE HIGHEST AUTHORITIES, ENGLISH AND FOREIGN.

CHAPTER X.

ROUNDELS AND GUTTES.

THE Plate is Argent (white), and denotes a silver piece of money.


PLATE

The Tourteau is Gules (red), and originally was symbolical of a spot of blood on the shield. The word is borrowed from the French, who use it still for anything flat and round, in the shape of a cake, which they call by that name.


TOURTEAU

The Hurt is Azure (blue). It is symbolical of a fruit of that name, of a dark blue colour, which grows on wild heaths or moors, and most likely was adopted as a heraldic sign in memory of some battle fought on a heath where the fruit grew in abundance; or it may be where some celebrated tournament was held.


HURT

The Pomme is Vert (green). It is the French word for an apple, and may have been introduced into court armour for the reason as the Hurt last named.


POMME

The Golpe is Purpure (purple). Its round form represents a kind of bolus or medicine in the form of a ball. It is supposed that its name is taken from the word *gulp, to swallow;* and in the days of superstition and romance it was believe to be of great efficacy in laying asleep dragons, wiverns, and all other ghostly guardians of enchanted castles, &c.


GOLPE

The Pellet is Sable (black), and is supposed to represent a ball of lead discharged from one of those monstrous catapults or other engines with which the ancients used to batter down the walls of castles and fortresses.


PELLET

The Orange, which is Tenné, is a representation of the fruit of that name, which was originally adopted to commemorate deeds performed in the countries where it abounds.


ORANGE

The Guze is Sanguine (murrey colour). The etymology of this word is somewhat doubtful. Lumps of red hot iron, as seen in foundries or forges, are still called by the name of *gueuse* in France, and its dark red colour as it begins to cool has given origin to this roundel. It signifies a red hot ball hurled by engines of war from the battlements of a besieged town.


GUZE

The Fountain is barry wavy of six, Argent and Azure, and represents a spring of water. No doubt in battle, as in any other circumstances where great physical energy is used for a length of time, thirst is engendered, and, in fact, it is the strongest desire the wounded knight or warrior feels, and so eagerly did he drink of the cooling and reviving draught from the neighbouring brook or spring, that he, in grateful remembrance of the seasonable refreshment thus received, had the fountain represented on his shield. Tasso, in his "Jerusalem Delivered," alludes to this when he represents the brave Tancred as receiving refreshment from this source.


FOUNTAIN

It is only English heralds who designate the roundels or roundlets by the foregoing names, foreign heralds style them all *Tourteaux*, specifying their respective colours.

We come next to what are called Guttes or Drops. Here again the French language is retained to express these devices in coat armour. Of these drops there are six, as follows:—

Gutte de Or, which is the only one that bears the name of a metal, in allusion to ingots of gold offered in ransom of captive knights.


GUTTÉ D'OR

Gutte de Eau (The drop of water) is Argent. Its origin is supposed to have taken its rise in the sultry fields of Palestine, when the buckler of the warrior


GUTTÉ D'EAU

was often bedewed with drops of sweat from his brow in battle.



GUTTÉ DE SANG

Gutte de Sang (The drop of blood) is Gules (red), and represented the blood from an adversary in battle, single combat, or in the tournament.



GUTTÉ DE LARMES

Gutte de Larmes (The drop or tear) is Azure. When a knight appeared with his sable armour in the carousel to revenge the death of a brother in arms, or an insult offered to an oppressed lady, he could not express the object of his resentment more forcibly or appropriately than by sprinkling his shield with representations of tears.



GUTTÉ D'HUILE D'OLIVE

Gutte de Hurle de Olive (The drop of oil) is Vert (green). The beautiful parable of the Good Samaritan is a proof that oil and wine was an ancient and common remedy for fresh wounds. The benefit received from its application by those who were wounded in battle, in a country where olive trees grow plentifully, may have given birth to this bearing.



GUTTÉ DE POIX

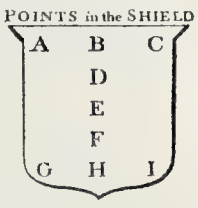
Gutte de Poix (The drop of pitch) is Sable. Previous to the invention of gunpowder, in the defence of besieged towns and castles, the besieged used to pour from the walls and towers of their citadels, boiling pitch, and other combustibles, upon their assailants, and this Gutte was very likely preserved on the shield as a monument of bravery, and to intimate that the knight had been conspicuous in scaling the walls of, or conquering, a fortress.

THE POINTS AND DIVISIONS OF THE SHIELD.

In the palmy age of chivalry every object relating to the profession of arms was exalted and dignified by some distinguishing mark of form or colour. The armour was so closely united to the body, that it seemed to form part of it, and an insult offered to it would have been resented with as much warmth as if the warrior himself had been insulted; hence it arose that the shield was considered to represent the man himself, and its parts were named accordingly. The summit of the buckler was called the *chief* or the *head*. The point immediately under the head took the name of the *honour point*, alluding to the breast, and the lowest but one is called the *nombril point*. In confirmation of this we read that the shield of Austria, being *Gules a fess Argent*, was intended to represent the whole of the silvery coat of Duke Leopold, which, after a battle was so encrimsoned with blood that it appeared all over red, except the part which was covered with his scarf. It was also usual, when an honourable wound was received or given, to commemorate the deed by placing a *roundlet* or *gutte* on that part of the shield corresponding with the body of the bearer. Nine letters of the alphabet are used to distinguish the nine different points into which the shield is divided, as, for example—

A. The dexter chief.
B. The middle chief.
C. The sinister chief.
D. The honour point.
E. The fess point.
F. The nombril point.
G. The dexter base.
H. The middle base.
I. The sinister base.

POINTS in the SHIELD



(To be continued.)

THE JOURNAL OF DECORATIVE ART PRIZE SCHEME, AND EXHIBITION.

WITH this number we issue PRINTED FORMS OF APPLICATION FOR SPACE in the above competition, details of which were given in our last number, and a reprint of which is given on the reverse side of the "Application Forms." We desire specially to impress on all competitors the necessity of compliance with the printed conditions set forth therein. The detailed arrangements of such a scheme are necessarily complex, and it is to simplify matters, as far as possible, that we have issued the printed forms and envelopes. It is also important that attention be paid to the little footnote on the envelope, as the neglect of this may involve the loss of the entrance fee, and occasion inconvenience and trouble. We have had several enquiries relative to the Scheme, which we answer in our correspondence column, and any points not made sufficiently clear, we shall be pleased to reply to in our December number.

OUR ILLUSTRATIONS.

WE give this month two double sheets of illustrations of Christmas decorations suitable for schools and churches. Our first sheet consists of six Christian emblems or symbols, suitable for working out in paint on canvas or in other ways. Our second sheet embraces numerous suggestions for festive decorations in connection with Christmas time, as well as other feasts and festivals of Christian churches, a full description of which will be found in our article upon Christmas decorations. Of the six emblems on our first sheet the first is the Lily, used in all ages, both Pagan and Christian, as an emblem of purity. As a devotional emblem it is representative more

especially of the Virgin Mary, but most virgin saints are pictured with a lily in their hands. The second is the Dove, or *Agnus Dei*, an emblem of our Saviour, the Lamb of God which taketh away the sins of the world. It is also an emblem of purity. Lambs are symbols of the meek and faithful Christians: a series of twelve represents the twelve Apostles. No. 3 is the Rose, also an emblem of the Saviour—the Rose of Sharon. No. 4 is the Passion Flower, often used in modern symbolism as an emblem of the Passion. No. 5 is the Dove—an emblem of peace—carrying the olive branch over the waters to Noah in the ark. It was also symbolical of the Third Person of the Blessed Trinity. No. 6 is the Vine, emblematical of Christ, the true vine. Ears of corn and bunches of grapes were frequently used as typical of the bread and wine of the Holy Sacrament. The grapes sometimes symbolise the disciples. (John xv.)

In our December number we shall give other examples of emblems, symbols, &c., with instructions in the best methods of making wreaths, festoons, and garlands, and a list of the various kinds of materials suitable.

ART NOTES.

Seven or eight years ago, two ex-colonials interested and astonished London by the erection of the Criterion Theatre and Restaurant, an institution designed to minister to the sensuous requirements (both animal and mental) of mankind in general, and Londoners in particular.

In its lavish display of Decorative Tile work of the most costly description, and in the thorough and complete manner in which the whole thing was done, down to the smallest details, the work was unique.

Since then, however, much has happened. The "Cri" has had many rivals, if not imitators, and what was for a time a "sight," has now fallen into the category of the "commonplace."

The latest novelty of the kind is the Holborn Restaurant, and when one sees the costly, not to say princely, manner in which these "Eating Houses" are fitted up, visions of the *El Dorado* that the business must be, are continually flitting before our gaze.

"The Holborn" is only another illustration and confirmation of the truth that if the public is well catered for, its patronage is sure to be secured. Started about five years ago, on a somewhat new basis, it has blossomed into an enormous concern.

The proprietors, recently becoming possessed of the adjoining land, determined on an extension more in accord with the taste of the day, and the new premises are the result, or will be, when complete.

All that taste and skill can command is here done. Stained glass, Tiles, Marbles, Mosaics, Parquetry, and choice woods are all to be met with in no stinted measure.

The Buffet walls are divided into five bays, composed of light *rose antique* marble broken up with pilasters and columns of dove marble, with black marble plinths and gilded caps. Two large silvered glasses, with bevelled edges, are let into each bay between the pilasters. The counter top is of St. Remi, and the fronts and dado of conglomerate, with pyrenean green panels and black mouldings, while the floor is laid with Burke's mosaics. The effect is at once extremely rich, yet quiet withal.

The roof is divided into five lantern lights, to correspond with the bays of the wall. Three of these have stained glass lights, while the other two are decorated. The transverse sides of the lantern are decorated with birds—peacocks, swans, storks, &c.—on gold grounds; while the lateral ones are occupied with figure subjects. They are all treated in a broad decorative spirit which is very successful.

The large dining-room upstairs is wainscotted, to within three feet of the ceiling, with American walnut, panelled out in the Jacobean style. One side is broken up with stained-glass windows, and the opposite wall is relieved with some fine paintings on tapestry by F. Du Mont; the effect of which is much enhanced by a broad band of dark velvet, which surrounds and separates them from the woodwork. The roof is divided into large panels, with walnut-wood stiles, the panels being filled in with the Lincrusta Walton, relieved with gold and colour, and the *ensemble* is all that can be desired.

The Grill room is carried out on a scale of equal lavishness, only marble, there, again, takes the place of wood. Some excellent stained glass is here shewn in a series of windows and roof-lights. The place is well worth a visit, and not the least recommendation to it is, that you can have a good dinner, well served, at a reasonable cost.

Bond Street is in the the throes of preparation for the Winter Exhibitions. At Mr. Gullick's gallery of "Decorative Art," they are preparing to open an exhibition as early in November as possible. This will not be on the same lines as the Summer one, as prominence will be given more to Fine Art, and the "Decorative Art" will literally take a lower room. The whole of the upstairs rooms are being devoted to Pictures and Sculpture, whilst the ground floor is retained for purposes similar to the last exhibition.

CHRISTMAS DECORATIONS.

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CHAPTER I.

"When Rosemary and Bay, the poet's crown,
Are bawled in frequent cries through all the town;
Then judge the festival of Christmass near,
Christmass, the joyous period of the year!
Now with bright holly all the temples show,
With lawrel green and sacred mistletoe."—GAY.

COMING events, says the poet, cast their shadows before them, and the presence of November, with its fogs and dulness, is the undoubted and welcome harbinger of brighter and happier days near at hand.

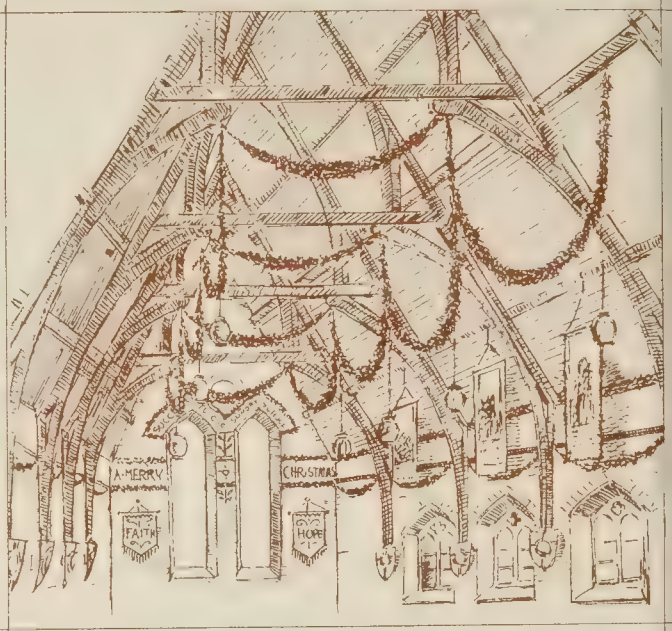
We are within "measurable distance" of that season which is to many the most joyous and sacred of the year.

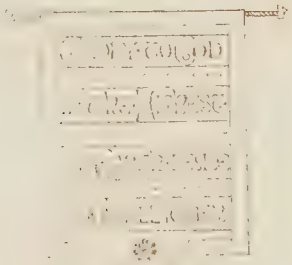
"Lo! Winter cometh, and his hoar is heavy on the hill,
And curiously the frost-work forms below the rimy rill;
The birth of morn is a gift of pearl to the heath and willow tree,
And the green rush hangs o'er its water bed, shining and silvery."

Each season of the year has its own peculiar charms to the lover and student of nature; and Winter, though it brings with it dark days, nipping frosts, and biting winds, is not altogether what old Sackville terms "The Cruell Season." Not only within doors, but without, Winter comes to us with credentials of many beautiful memories and associations. Listen to the pleadings of one of our sweetest poetesses:—

"Say not 'tis an unlovely time!
Turn to the wide wild waste thy view;
Turn to the silent hills that rise,
In their cold beauty to the skies,
And to those skies, intensely blue.









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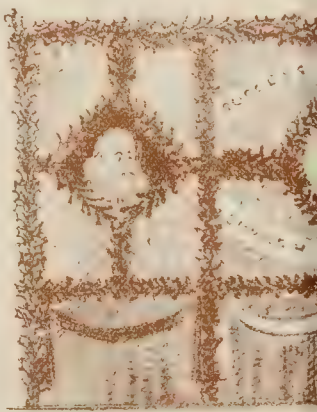


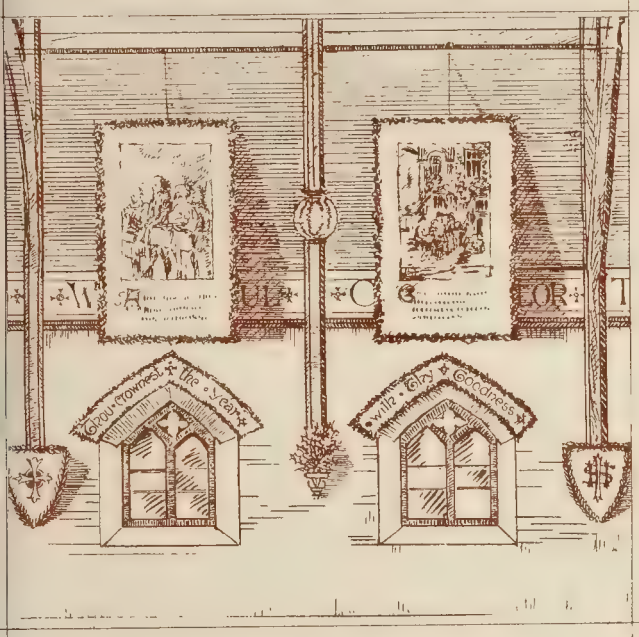


















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17











ISTMAS DECORATIONS.

Walk now among the forest trees;
Said'st thou that they were stripped and bare?
Each heavy bough is bending down
With snowy leaves and flowers—the crown
Which winter regally doth wear.

And to those who love to study nature in all her aspects, who delight to commune with her in her hours of quiet rest, when the soft murmurings of the departing year seem to speak to us in solemn whispers of the past, Southey's words come with especial meaning—

"To the sobered soul,
The silence of the wintry scene,
When nature shrouds her in her trance
In deep tranquillity.

Not undelightful now to roam
The wild heath sparkling on the sight,
Not undelightful now to pace
The forest's ample rounds,

And see the spangled branches shine,
And snatch the moss of many a hue
That varies the old tree's brown bark,
Or o'er the grey stone spreads."

While to those who rejoice in the full sense of vigorous life and action which it brings, what can there be more inspiriting than the "Heigh ho! sing heigh ho! unto the green holly" which Shakspere sings of? But the greatest attraction of the winter season is dear old Christmas—

"Wake me to-night, my mother dear,
That I may hear
The Christmas bells so soft and clear,
To high and low glad tidings tell
How God the Father loved us well"

sweetly sings John Keble, and the sentiment embodies the popular sympathy and regard with which we view the Christmas time. Hallowed and rendered sacred by the most momentous and beautiful event in the history of the world, the tender strains of the dawn of a new era, which the Judean shepherds heard on the plains of Bethlehem,

"The hallowed anthem sent to hail
Bethlehem shepherds in the lonely vale
Where Jordan hushed his waves, and midnight still
Watched on the holy towers of Zion's Hill,"

fittingly heralded that empire of Righteousness and Peace, which had its beginning in the manger of Bethlehem, but which is destined to increase "till the kingdoms of this world have become the kingdoms of our God."

A writer on this topic says—

"Of all the festivals which crowd the Christian Kalendar there is none that exercises an influence so strong and universal as that of Christmas. In every way and by many a tributary stream are the holy and beneficent sentiments which belong to the period increased and refreshed.

And in the echoes of that song which proclaimed 'Peace on earth and goodwill towards men'—making no exclusions and dividing them into no classes—rises up a dormant sense of universal brotherhood in the heart."

And speaking of the home influences and associations which are renewed and strengthened by the festivities of the time, he continues—

"Wise and beautiful is any institution which sets up a rallying-place for the early affections, and re-awakens the sacred sympathies of youth! which from that well-head of purity and peace sends forth, as it were, a little river of living waters to flow with revivifying freshness and soothing murmur along the wastes and wildernesses of after years."

CHAPTER II.

OF the many pleasant associations of Christmas time, those of the "Decorating" give place to none.

The custom of adorning the home with the flowers and plants belonging to this season is a very ancient one, and obtained equally with peasant and noble.

"Each house is swept the day before,
And windows stuck with evergreen;
The snow is besomed from the door,
And comfort crowns the cottage scene.
Gilt Holly, with its thorny pricks,
And yew, and box, with berries small,
These deck the unused candlesticks
And pictures hanging on the wall,"

Is a description redolent of the simple manners and home life of our forefathers, while, in the following lines, we are transferred to the more pretentious mansions of the great :—

"The hall was then with holly crowned,
'Twas on the wild deer's antlers placed;
It hemmed the battered armour round,
And every ancient trophy graced."

So vivid is the description we can almost see the bright, warm, flickering of the firelight, as it leaps up the open chimney, reflected on the armour, and can imagine we hear the boisterous laugh and merry song of the revellers at the castle festivities.

Some chroniclers have endeavoured to trace a connection between this adorning of our houses and churches with the strewing of palm branches in the way, on the occasion of Christ's entry into Jerusalem; and some go even further back, and try to find a connecting link with the ceremony which, by the order of Nehemiah, the Jews observed on their return from the Babylonish captivity.

Be that as it may, the custom is endeared to us by a long historic past, by its associations, and by its own inherent beauties. We sincerely trust, therefore, that the "utilitarian" tendency, which seems to be the most powerful operative force of the day, will never direct its destroying energies against such a delightful custom.

It is on the decoration of our Sunday Schools for Christmas time that we propose devoting some of our space to in this and our succeeding number. The question is one that appeals to the sympathies and interests of a wider circle of readers than those interested merely in the technical portion of our publication, and our intention is to treat the subject more with a view to the amateur decorator, than the professional.

And in so doing we are not in any way going from the legitimate function of our journal, or departing from the lines which we marked out for ourselves at the commencement. We do not assume to any special inspiration in the matter; what we say will be the outcome of an experience of some years in this special field, and we hope to make it not only interesting but useful to all our readers.

It is not at all an unfrequent occurrence with decorators to find, at the conclusion of their labours, that (to use a common expression) "the game has not been worth the candle"; or, in other words, that the result is altogether inadequate to the time and trouble expended upon it. There are ample evidences of great labour, and a great expenditure of time; but they are scattered—fragmentary, and incoherent—and lack oneness and unity. This result is due to the neglect of one or two precautions that it will be our duty to point out in the following remarks.

CHAPTER III.

JUST about this time of the year the Sunday school world is being agitated and moved with schemes "to make the barren place rejoice" and the "wilderness to blossom as the rose." We shall jot down in the following chapters one or two suggestions that will be found useful by all engaged in this kind of work.

There are various theories abroad as to the Christmas decoration of churches with which we need not concern ourselves, simply remarking, in passing, that while the principles applicable to church decoration of this character are the same as employed in school work—in the latter we have a wider latitude, and need not adhere to a hard and fast line, our only regard being to produce an effectual ensemble.

One of the most successful decorations we ever saw—a rough idea of which we have endeavoured to convey on the second sheet (we give a perspective and front view)—was quite a departure from the ordinary accepted modes of decoration. The key to the whole scheme was to be found in the large sketches suspended from the purlins in the centre of the bays, between the principals. These sketches were on sheets of cartridge paper, about 6ft. by 4ft. 6in., and on these (as indicated) were sketches of different scenes, expressive of the season's festivities. In the instance under notice the scenes were taken from a book entitled "Christmas with the Poets," illustrated by Birkett Foster. The large sketches were drawn boldly in with a soft BB. pencil and afterwards washed over with colour. Underneath each picture was an appropriate verse, extracted from the same book, the whole being surrounded with a border of evergreens stitched on strips of paper and afterwards attached to the large cartoons.

These sketches were the key-note to the whole of the decorations and to the Christmas "meeting," and in their effect conveyed a sense of "Christmas feeling" that was unique. Of course, while this sort of work does not require fine drawing, it needs accurate and correct work, otherwise by its very pretentiousness it invites criticism and stands condemned. It is very desirable, in setting about the decorations of the school, that one gentleman from amongst the committee be elected, who shall have the sole direction of the work, and to such we would suggest the advantage to be gained from making a small rough sketch of the school and the proposed decorations. This, though it involves a little extra trouble at the outset, more than saves itself in the end; and it has the result of giving an appearance of design to the work, which can be obtained by no other means. The superintendent of the decorations should supervise all that is being done; it is almost worse than useless for a number of enthusiastic individuals to be working away without any relation to what each other is doing; be as enthusiastic as you like, but let your work be in sympathy and character with the general designs, otherwise failure is inevitable.

In fixing on a scheme of decoration advantage should always be taken of any structural features, either to emphasise them or to give point to the decorations, by bringing them into a harmonious *contrast* with the lines of the building. Each room has an individuality of its own, and no rigid fixed rule can be laid down, but a little careful study of the room will soon reveal the natural modes of decorating it.

A feature in the schoolroom that is not always made the most of is the platform—a sketch of one is given on the second sheet, which was quite an innovation when it was tried, but was very successful in its effect. The following description will enable our readers to reproduce one on similar lines very readily.

Measure the length of your platform and then divide it into three bays, the two side bays being proportionately narrower than the centre one. When you have settled this, get four upright saw strips of the requisite length for the uprights—3in. broad by ¾in. thick—tie these together top and bottom with a strip, same width and thickness, the entire length of the platform; then make out the diamond-shaped centres and the circle, connecting them with the framework with arms, as shown. This completes the woodwork.

Now fill in your surrounding spaces from the back with coloured paper, or white paper, to be coloured afterwards. The centres can be filled, also from the back, with emblematical devices, or, as in the case we saw, with rough charcoal sketches of the minister, superintendent, and ex-superintendent. Over the entire front surface was stretched a fine open gauze—the effect of this on the portraits was to soften and

subdue their crudeness—and over the plain coloured parts, where the gauze was stretched, mistletoe was sewn on in very small pieces, but equally distributed.

Surrounding the centre circle, as our sketch shews, there was a motto, pertinent to the special circumstances of the meeting.

Now, as the final touch, we attach the bands of leaves all over the lines of the framework; this gives completeness and finish to the whole structure. They are better put on last, as they cover up the tacks used in fastening the gauze on. The reason for papering from the *back* is, that there is a perceptible space between the surface of the coloured paper and the gauze. Gauze is in no way necessary, as the coloured paper will do without it quite as well, only if it is desired to attach the mistletoe, as we did, it enables you to do it. The bloom that the mistletoe gave was very pretty and effective. If you adopt the gauze, have your colour underneath *brighter* than you intend it to be when finished, and rely on the gauze for toning down.

CHAPTER IV.

Mottoes.

Mottoes are one of the most valuable adjuncts in the decoration of a room, as they are generally the first point on which the eye rests on entering. This arises from several causes. (1) Their distinct individuality of character; (2) their uniformity in mass and disposition; (3) the interest attaching to what they tell us; and (4) their decorative and artistic qualities. Possessing these weighty claims on our consideration, their importance will be at once recognised, and we cannot do better than lay down one or two essentials, which we should ever bear in mind in regard to them. And first, we would say, let your mottoes be legible, bold in their character, consistent—that is, not two or three types of letter in one inscription—well formed, and well spaced out. Each of these conditions requires attention, and in their results are well worth the expenditure of some trouble. This generally is the weak spot of amateurs, and the one most readily detected; and let us add the one that, if faulty, most mars the success of any decorative undertaking.

There is not the slightest necessity that this should be so, for the power to shape letters well is as easy of acquisition as that of writing. One of the cleverest men we know in this special line is an amateur quite unconnected with the trade. We are afraid that many would-be decorators are like a lady of our acquaintance who recently asked us "where she could learn to paint flowers," and on our ungallantly suggesting that she should first learn to draw them, said, "Oh! but that would be too much trouble." We don't think that even in these days of "learning made easy" there is much worth the having accomplished without trouble.

In the producing of mottoes there are two or three alternatives permitted us. We can either buy the texts ready printed, which never have the value nor the appositeness of specially made ones, or we can employ professional talent to write them; or if there is no one on the committee who can "set them out," we can purchase alphabets, and use them to mark out what we require. This latter is the best plan to adopt, as we can then adjust our letters to any position or style of work we wish to do. A small stop between each word in the centre of the paper, and a larger or more important ornament at the beginning and end of the motto adds very much to their decorative appearance.

The proper spacing out of the letters or words is another point well worthy attention. If space is limited, it is better to keep the letters well together, and separate the words. This gives clearness to the reading.

The positions the mottoes are to occupy is likewise a question demanding some little study. There can be no hard and fast rule laid down, as each room must be treated on its merits, but such positions as a frieze running round the room, the window heads, any arches there may be, are all natural places to be employed for this purpose. Before leaving this question we would strongly condemn the employment of letters of the character of those given at the end of the second line on our sheet of illustrations. They are very much affected by amateurs, but are exceedingly difficult to decipher, and have not even the recommendation of being ornamental.

Letters.

Of course there are many kinds of letters. No combination is better than vermillion capitals, black letters, and blue stops, on a white ground. This arrangement is always pleasing, and is especially so if the body of the text be written in early English. If any of the committee are clever with their pencil, a little ornament in outline, round the capital letter, will add considerably to the value of the decoration; or it can be gilt, or a gold tablet laid in and the capital painted on; in either case, the letter must be outlined to separate it from the gold. This rule is inflexible. If for temporary purposes, we would advise the use of bronze powders, instead of gold leaf, as the latter demands considerable expertness in the handling. Of all kinds of letters, written ones are certainly the best, and have the most character about them. Next to written ones come letters cut out of paper, as they are more within the compass of the average amateur decorator, and the making of them is greatly facilitated and simplified by the use of an alphabet. Letters cut out of cardboard or stiff drawing paper, and then covered with cotton wool, have their advocates, and for getting certain effects they are doubtless very

good. Their best value, however, is obtained when they are fastened on a background of leaves. Another method of producing letters is to cut them out of cardboard, dissolve some gum tragacanth to the consistency of a jelly, then wash over the cardboard with the gum, and spread large carolina rice over it; this is repeated till the requisite thickness of coating is obtained, when they can be used white, or can be made to imitate coral, by being washed over with a solution of red sealing wax, dissolved in spirits of wine. Crystal frost, which is simply glass, made like "Prince Charlie's" drops, and then burst, can be advantageously employed to sprinkle over the various texts and evergreens. Another way of using the cardboard letters is to cover them with leaves. This requires very judiciously doing, and the leaves should be the smallest possible, otherwise the letters will be clumsy and unshapely.

SHIELDS.

Shields lend themselves admirably to the purposes of the decorator. They are decorative in their character, and offer an excellent field for devices of any kind to be worked on; to place in front of corbels they make a natural and appropriate finish. We give sketches of a few different forms, and in the chapters on heraldry, many of the shields there shown will admit of adaptation to the requirements of the decorator.

(*To be continued.*)

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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CHAPTER XII.—WALNUT WOOD.

THE walnut tree is one of the most useful, as well as the most beautiful, of trees, and is interesting from every point of view. Most of us are well acquainted with its fruit, which forms a most agreeable item of dessert—rather indigestible, except when eaten with salt. The walnut tree is of the genus *Juglans*—a genus of beautiful trees of the natural order, *Juglandaceæ*, having the ovary one-celled, with a solidary erect ovule. The flowers are uni-sexual, the male flowers in catkins, the female in terminal clusters. The species, of which not quite thirty are known, are mostly natives of North America, but a few are found in Asia. All are trees with alternate pinnated leaves. The genus *Juglans* are distinguished by flowers having 18 to 24 stamens, and a chupe with a deciduous fleshy husk, which bursts irregularly, having within it a deeply-wrinkled shell of two parts or valves, inside of which is the seed or nut.

The common walnut tree is a native of Persia and the Himalaya, but has long been cultivated in most parts of the south of Europe. The date of its introduction is unknown, although it was cultivated by the Romans in the reign of Tiberius. It is a lofty tree of from 60 to 90 feet, with large spreading branches, and its foliage resembles that of the ash. The leaves consist of from two to four leaflets, and a terminal one. They have a fine balsamic odour when bruised. An infusion of them has been found useful in scrofula, and when bruised and rubbed on the skin they are very efficacious in curing the itch. Placed in wardrobes and drawers, they prevent the ravages of moths. The sap is as clear as water, but contains much sugar, so that the tree is sometimes tapped for it like the sugar maple, and the sugar is procured by evaporations. A pleasant sort of wine is also made from it. An excellent pickle and a ketchup are made of the unripe fruit; and the thoroughly ripe fruit is one of the best of edible nuts, and is an important article of export from many parts of the south of Europe. Walnuts are also exported in immense quantities from Cashmere and other Himalayan regions. In the south of Europe these nuts are a very considerable article of food. Walnuts also yield a bland fixed oil, which under the name of "nut oil" is much used by artists, and in the countries in which it is produced, is a common article of food. The cake left after the oil is expressed is also used as food both for men and cattle.

The timber of the walnut tree is of great value, and is used by cabinet makers, gun-stock makers, and for various other purposes. The wood of young trees is white and not much esteemed, but that of the old trees is brown-veined, and marked with dark-brown and black, the wood of the roots being most beautifully marked. Both the roots and the husks yield a dye, which may be used as a stain on other woods.

The walnut tree grows well in Great Britain as an ornamental tree, although it seldom quite ripens its fruit except in the warmest parts of England. It was probably brought to England by the Romans.

The black walnut tree of North America, and found in most parts of the United States, is a very large tree, reaching six or seven feet in the diameter of its trunk. Its timber is even more valuable than the common walnut. The fruit is, however, inferior. The wood of this tree is most extensively used in America for furniture and the woodwork of dwelling-houses, &c. Its value as a structural wood in connection with other decorations is being extensively recognised in this country, an example of which will be found recorded in our "Art Notes."

The Italian walnut wood is most beautifully marked,



W. Sutherland, Invt.

CHRISTIAN EMBLEMS.



VI. A. A. Sutherland, Delt.

Designed and Drawn expressly for this Journal.

and is, we believe, much in advance of any other kind in the market.

We have dwelt rather long on the history and characteristics of this tree, feeling assured that such information is always interesting, useful, and necessary, if we would thoroughly understand what we are doing.

In imitating the wood of the walnut tree, we may first point out that while the wood is exceedingly rich in its colour and markings, or grains, yet it is not a bright richness, but a quiet fulness of colour—not splendid, yet pleasing; and when judiciously coloured and contrasted, the plain with the richly-figured, it is a very beautiful wood. The characteristics of its grain are, first, a soft shady mottle, which we may call the under-work, then a light under-grain, upon which is a dark curly over-grain, and a rich glaze of colour on top of all. Now, to produce this richness we do not require a highly-coloured groundwork, for we find many grainers destroy their work by having their grounds too full in colour, or rather, too bright. This is a mistake. A dull ground may be made rich by glazing, and with a sober richness, which cannot be got if the ground is too bright. The best ground for graining walnut upon is made from Oxford ochre, venetian red, and burnt turkey umber, with white. Neither the yellow or red should be in excess, but should be neutralised or dulled by the umber; and although this colour may look dull when in the paint, it will be bright enough when grained and glazed. In graining, we first damp the work down with weak beer, and add a very small quantity of fine whiting to it. The graining colours are burnt sienna, vandyke brown, and drop black. Mix burnt sienna with a little vandyke brown, and dilute them with beer or water, having the colour sufficiently strong to show a distinction between it and the ground colour. We brush a panel over with this, and then take a broad hog-hair mottler, and mottle the whole of the panel with a broad straight mottler, softening it with the badger. When this is dry, we use two or three different sizes of hog-hair over-grainers, with a thin mixture of vandyke brown, and go over the panel with it, using it rather freely, and always in curves. While it is wet we soften it with the badger upwards, so as to form a light and dark grain. This being dry, we next take a soft mottler, some clean water, and with it wet the panel over; then, while it is damp, we use the over-grainer with a mixture of drop-black and dark vandyke brown, and the black alone, putting in the dark veins; *i.e.*, it is best to have the brown on one plate and the black on another, as we can then dip into the one or the other as we may require; and, having some diluted beer either on a plate or in a basin, we are thus able to dip the overgrain first into the beer, then into either colour, and so get a variety of colour. While putting in the dark overgrain we use the badger to soften occasionally, and if all is wet together, we get some beautiful soft effects. Care must be taken, however, that in softening the dark veins we do not obliterate them, and smudge them one into the other. In the real wood there will be found light spots, round which the veins curl. These spots cannot be put in with the overgrainer, so we use a pencil for that purpose. It will also be found that there are dark veins which enclose the smaller and fainter ones. These may also be put in with the pencil. But we endeavour always to finish as much as possible with the over-grainer, as we can thus produce effects which it would take hours of labour to form with the pencil alone, for the grain takes a very eccentric course sometimes, and by wriggling or working the overgrainer in short sharp curls, we produce the exact counterpart of the grain of the wood, and with effects of light and shade not to be got by any other means.

While the work is in this state it may be varnished, and when this is dry we proceed to glaze it, which may be done either in oil or water colour. The glazing colour should be a mixture of vandyke brown, and a little black with it, or we may get a rich glaze with burnt sienna and drop-black, adding a little indigo blue in places, which serves to enrich and give tone to the other colours. In glazing, we rub over the whole of the panel with the glazing colour, wiping out with the wash leather any parts we want lighter, together with the reflective lights we see round the curls, and soften the whole with the badger; but if there are any parts we think may be improved, especially in and amongst the dark curls, we put it in now with the pencil and black. It will be seen on a careful inspection of the real wood, that there are many plain or rather light parts, but though they look plain (from the absence of the dark veins), yet it will be found that these parts are full of soft mottle and light curly overgrain. We therefore again urge upon the student the advice previously given, viz., not to over-crowd the work, and to study the real wood. The effect of good work is often spoiled by over-crowding. Make the panel of a door as rich and full of figure as in the most beautiful parts of the real wood, but let the stiles and mouldings be comparatively plain. The effect of a rich and elaborately-worked panel, with quiet and plainly-worked stiles, always produces the same pleasure we derive from the judicious contrast of two or more colours, the one purifying and enriching the other. The work should now be well varnished, and lightly rubbed down between each coat, so as to ensure in the finish a surface free from nitts or other roughness. Dark woods require a high polish to bring out all their beauty.

(To be continued.)

Trade Intelligence.

A VERY interesting correspondence has recently been carried on, in the pages of the *Building News*, as to the employment of inferior and incapable workmen (joiners), introduced and retained in the shop under the ægis of the foreman, who is "sweetened" with a stated sum on the earnings of his *protégé*, or a lump sum down as a premium.

WE gather from the correspondence that this system prevails to a very considerable extent, to the detriment both of the employer and the superior workman, who is thus handicapped in a most unfair and unjust manner.

UNFORTUNATELY, this system is not confined to the ranks of the carpenters and joiners, but extends all through the various departments of the building trade.

WE were in a painter's shop the other day, when an applicant for a situation as an improver presented himself. We happened to know that he was not more than eighteen (though he looked twenty-two), and that he had only been at the trade for three years. Imagine our astonishment, therefore, to hear him state that he had been working all summer, in a well-known shop, as a *journeyman!* This could only have been done with the complicity and connivance of the foreman, as, on his merits, the lad would not be kept a single day as a journeyman.

IN such cases the employer, if he does a large business, is practically powerless, for it is impossible to test the men before giving them work. It behoves masters, therefore, to look to it that the men they entrust with the oversight of their hands are of tried character and integrity, for in these days of competition it is often attention to these minor points that makes the difference between success and failure.

"CORNERING" operations are not confined to cotton—as witness the "jump up" of turpentine from 34s. to 43s. The explanation lies in the fact that a New York Oil Company have laid their hands on the stocks, and simply command the markets, placing therein, day by day, just what they please. Avarice and greed are evidently the governing motives now-a-days of our commercial relations. Linseed oils remain at a low figure—27s. and 29s. per cwt.

To the large number of gold medals already received, Messrs. Crowden and Garrod add another. This latest acquisition comes from the Adelaide Exhibition. We are glad to record this additional testimony to the sterling worth of their productions.

Answers to Correspondents.

All questions should reach the office not later than the 15th of the month, so as to ensure being answered in the succeeding number.

J. S., MARLOW, BUCKS.—(*a*) The varnish makers you name are all of them first-class firms, and we have no doubt their polishing copal would answer your purpose; but if you would prefer to try Messrs. Wilkinson, Heywood, & Clark's pale polishing copal, they would, no doubt, supply you direct with the small quantity you name, provided you stated the purpose for which you wanted it. (*b*) In answer to your second question, we have had no experience in the polishing of Albarine, but if you write to the Yorkshire Varnish Company, they will be pleased to give you every information on the subject. (*c*) In answer to your third question as to whether colour will be taken into consideration in awarding the prizes, harmony of colour, as applied to the decorative designs sent in competition, will most certainly be an important consideration; but colour, as applied to the examples of polished enamel, will not be a consideration, as they may be of any colour or tint. (*d*) We have no knowledge of the Crete enamel. We have made numerous enquiries, but cannot get any information.

J. L., BURY, LANCASHIRE.—(1) In answer to your question as to a lodging-house for working men who wish to see the Journal of Decorative Art Exhibition, we shall have no objection to making a few enquiries and communicating the result in the Journal at a later date. (2) There will be no objection to any competitor marking his exhibits as "for sale." We shall have a representative present during the exhibition who will receive any applications for purchase.

W. B., JEDBURGH, N.B.—You have given us a very difficult problem to solve. You say that although you took every care in the preparation of the work before painting, the work has turned out bad, and both ceiling and walls are covered with small brown spots about the size of a pin head. The first question in this case would be, Was the plaster-work thoroughly dry when it was painted? If it was not, then that might be the probable cause; but if the plaster-work was thoroughly dry, then we can only account for the brown spots appearing on the surface of the paint by supposing that the mortar or plaster contained some salts or other chemical matters which have been drawn to the surface by the warmth of the room. We know that large quantities of saltpetre are produced in dry as well as damp walls, and in this case we should conclude that the sand contained in the mortar was largely impregnated with this salt, which was bound to come to the surface. With regard to its cure, we can advise nothing but washing and repainting after a long enough time has elapsed to allow the whole of the salt to exude, or to paper the walls and ceiling with lining paper, and paint on that. We may mention, however, that the Sanitary Paint Company manufacture a hard-drying enamel paint which, they say, is very effective in keeping out damp. This paint we think might prevent the brown spots from again appearing, though we cannot speak from actual experience.

J. H. S., YORK.—PRIZE SCHEME COMPETITION.—CLASSES B. and C.—The panels for polishing and enamelling are to be plain colour. CLASS D.—Only one panel of each size is required; any mouldings must come *outside* the sizes given. CLASS F. and SPECIAL PRIZE.—The panels must be the actual work of the exhibitor, but employers' names can be given. CONDITION IX.—Only the designs and works that take the FIRST PRIZE in each Class will become the property of the proprietors of the *Journal of Decorative Art*, except in Section I., Class A., where the First and Second Prizes' designs will be retained. Your further suggestion that competitors in Section II., Class D., should accompany their panel designs with a small coloured sketch, showing the door and frame complete, we consider admirable, and, while we would not make it imperative, we would certainly suggest it to all intending competitors.

HENRY SHANLY,
MANUFACTURER OF
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A. A. Sutherland, Delt.

RCH AND SCHOOL DECORATIONS.

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W. Sutherland, Invt.

CHRISTIAN EMBLEMS FOR CH

Expressly Designed for

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"It is one of the affectations of architects to speak of overcharged ornament. Ornament cannot be overcharged if it is good, and is always overcharged when it is bad."—*Ruskin.*

RETROSPECTIVE.

AT the conclusion of our first twelve months' existence as a journal, it will not be considered out of place if we devote a small portion of our space to a review of our efforts during the year now passed.

A little over twelve months ago it was suggested to us that there was an opening for a journal of technical information, thoroughly practical in its teachings, accompanied by designs of an artistic and useful character. It is true that there were already three or four "Richmonds" in the field, but they were of a nature that only the more urgently pointed to the need of a new and true organ of trade intelligence and information.

It was no light or easy task to undertake the conduct of a journal based on the lines we mapped out for ourselves, viz., to lay before the house painters and decorators of the country, month by month, twelve pages of original writing and four pages of original designs. It meant the outlay of considerable capital, the employment of skilled artists and writers, and the expenditure of much anxious thought and labour. This we cheerfully recognised and faced, in the full confidence that the trade would respond to our endeavours on its behalf, and our confidence has received the most complete and ample justification.

Our circulation has steadily risen month by month, and we take the opportunity thus afforded us of tendering our thanks to the many friends who have interested themselves on our behalf in obtaining for us fresh subscribers, and for the expressions of encouragement they have sent us, and the numerous other ways in which they have evidenced an interest in our success.

We do not in any way regard our journal as having reached a state of final excellence, were that so, we should begin to look out for a final state of extinction, as nothing is more hurtful to healthy life, or more productive of stagnation, than a complacent, self-satisfied spirit. We are conscious of many defects, which are almost inseparable from a new undertaking, and shall avail ourselves of the experience thus gained, for the benefit and improvement of our journal. In saying this we are not ignoring what we have done, as the *Journal of Decorative Art* will safely stand comparison with any journal of its kind, and we are content to let the verdict of public opinion be based on its merits.

For the second volume we are having entirely new type, which will be reserved exclusively for the purposes of this journal, and in the artistic and lithographic departments we shall spare no efforts to make our work as perfect as it is possible to be.

In wishing our readers and subscribers the compliments of the season, we look forward to renewing our acquaintance in the coming year, and drawing still closer the bonds of mutual interest which link us together. In the January number of the new volume we hope to set forth a prospectus of the new year's work which will commend itself to the approval of the trade throughout this and other lands.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING & DECORATION.

BY THE EDITOR.
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CHAPTER XIII.

BEFORE leaving the portion of our subject which comes under the head of Preparatory Processes, it will not be out of place if we give here some account of the various machines and methods of removing old paint from woodwork; this being a kind of information of great value to the house painter. Several of these methods we have tested in practical work and therefore speak from experience.

Old woodwork, which has been painted over again and again for a great number of years, is apt to crack and blister. This arises from various causes—one cause being the use of improper methods of working, such as sizing the work, or what is technically called clearcoling, both upon the new wood, and upon old paint. Another cause is the placing one coat upon another too quickly. Still another cause of cracking is the fact, that a coat of paint of a quick drying nature, being put upon the top of one of a slow drying quality, before the latter is thoroughly hard,

will inevitably crack, from the great difference in the contractile action of the two. We have seen many theories advanced by writers upon the cause of paint blistering. It is a common experience with painters to find that old work, which has hitherto given no indication of blistering or cracking, will immediately, on being re-painted, commence to blister, and this is especially the case with outside work and the fronts of inside shutters. We do not purpose entering into the various reasons adduced for this, but we have thought much about the matter many times during the last forty years, and our individual opinion is that these results are caused by the heat of the solar rays acting upon the oil in the paint, causing it to become superheated, so that it generates a gas which penetrates and softens the under paint so much as to cause it to relax its hold of the wood and rise into a blister. Oil itself is concentrated heat, just as coal is. As to cracking, when not caused by improper methods of working, it will be found that the heat of the sun has evaporated the oil, which forms the only binding power of the paint, and thus it loses its cohesion, contracts, and splits up into millions of cracks. Judging from experience, we have good grounds for the view we have taken of the matter.

The work being in this state, it becomes necessary to remove the old varnish and paint accumulated upon the wood before we can hope to make a good job. The old method—and, in fact, one used even now—was to burn off the paint with red-hot irons. These were simply flat pieces of iron about four or five inches square, or heart shaped, or triangular, like a smoothing iron, affixed to iron handles about a foot or eighteen inches long. These were made red-hot and held close to the paint, which, of course, began to frizzle and burn under the iron; while the paint was soft with the heat the workman would scrape it off with a broad-ended chisel knife or scraper. This was a clumsy and slow process, involving much waste of labour and time, and often causing more injury to the work than it did good. The next improvement, if it can be so called, was to burn off the paint with either naphtha or turpentine, in this wise—the workman was provided with a brush, a pot containing wood naphtha or turpentine, and a broad chisel knife or scraper. The work to be stripped was then saturated with the spirit and a light applied to it, the whole surface was immediately a mass of flame, which softened the paint, and while in this state the workman scraped or chiseled it off. This required to be done very quickly or else the paint would again get hard when cool. This method answered pretty well for plain surfaces, but played havoc with moulded surfaces; it was also a dangerous process, as the hands of the operator were, without great care, liable to be burnt; the hot paint soon cooled upon the knife, making it blunt, and it had to be scraped and cleaned before he could proceed; during this delay the flame exhausted itself and necessitated another application of spirit. On moulded surfaces both this and the hot iron process are worse than useless; there being a constant slipping of the knife in scraping, causing cuts and indentations in the wood, which in themselves are almost as great an evil as the one we are endeavouring to cure.

There have been of late years two or three patents taken out for effecting this purpose, in which the leading principle is the maintenance of a permanent or regular heat to burn off the paint, or keep it in a soft state long enough to enable the workman to effectually clean the whole off to the bare wood. One patentee offers a machine in which the principle adopted is somewhat of a scientific character and is grounded on the lamp form. The lamp, if we may so call it, is made of a cylindrical or barrel form, having an opening in front and a handle behind; it has two cisterns, the one at the bottom in the ordinary lamp form, with a wick, the other in the upper part of the lamp, with an open space between the two; both cisterns are fed with naphtha or paraffine; on the top cistern is a safety valve, and from the same cistern a pipe descends to a convenient distance behind the wick and flame of the lamp. The *rationale* of its action is as follows:—The flame of the lamp heats the naphtha in the upper cistern, and it begins to evaporate, and this evaporated spirit, having no other outlet but the mouth of the pipe which is placed just behind the flame of the lamp, rushes down the pipe, unites with the flame and forces it outward in one bright and powerful jet in a horizontal position far beyond the outer case of the lamp. This flame the workman can, of course, direct on to any part of the work, but he has to go back to the old system of scraping or chiselling off the paint with the cold steel. There are many drawbacks to the use of this machine, but it is a decided advance upon the old plan.

The next improvement in these machines is one that we can heartily commend as a means of removing old paint by the application of heat; it is simple in construction and effective in use. The machine we refer to is Hulme's patent, owned and sold by the Yorkshire Varnish Company. This machine is in the form of a portable fire box, in size about 10in. by 6in., and has two wooden handles affixed to the back. This back being composed of the back of the fire box proper, there is a sheet of strong tin fixed about three-quarters of an inch from the fire box, and behind that is another sheet of tin, separated by half an inch space from the other. This arrangement prevents the heat burning the hands in working. The top of the box is fitted with a sliding lid, which is perforated, as is also the bottom, to allow the air and smoke to pass. A scraper is fixed at the top in front of the fire box.

In use the grate is filled with charcoal and lighted, and when it is at a red heat the workman holds the machine in one hand and places the fire so as to throw the heat directly upon the paint, which is quickly softened. He then places the scraper against the soft paint and gradually moves it downwards, bringing with it the whole of the paint down to the wood. The scraper being attached to the front of the grate becomes hot and remains so, thus avoiding the difficulty of the cold steel mentioned in the other processes, and removes the paint more easily and more effectually. The fire in the grate keeps the paint soft until it is all cleaned off, and the scrapers, being fixed, are not so liable to chip or cut the wood as the knife. The inventor supplies scrapers of various forms made to fit and clean the ordinary run of moulded surfaces. This machine we have used repeatedly and found it answer the purpose admirably; it is, without a doubt, by far the best method of applying heat for removing paint. Care should be taken to clean out the paint while soft from the quirks and mouldings of the woodwork, as the old paint, if not cleaned off while it is hot and soft with the first application, becomes, after being once burnt, ten times harder than it was at first, and requires so much heat afterwards to reburn it that the wood often suffers in consequence.

We come now to the more simple means of removing paint provided by the practical chemists of the day, and it will be evident that a very considerable amount of chemical knowledge has been brought to bear upon the subject. There are several chemical mixtures in the market for this purpose sold under different names. Messrs. Hayhoe's Patent Solvent is in the form of a thin paste, and having tried it we can speak very favourably of its action, both for removing and cleansing paint. The principle upon which they all act is to turn the oil contained in the paint into soap, and the cohesion between the oil and lead being thus destroyed the lead and other residue becomes mere mud, which may be washed off the wood with water and a brush. These preparations are mostly based upon the mixture of quick lime and caustic soda, or quick lime and common soda. This latter mixture we have used long ago, and found it a very efficient although a very dirty process. About three pounds of common washing soda is mixed with a bucket of quick lime to about the consistency of thick cream, and this must be put on with a brush made of fibre and not of hair, as the latter will be destroyed by the mixture. It immediately begins to burn or dissolve the paint, when, in the course of time, long or short as the case may be, the whole of the paint on the work becomes soft and washes off as if it were the mud of the street. Doors, shutters, and other work which can be taken down and laid flat are much more easily cleaned than if fixed, as the liquor can be poured upon them and left until it has done its work effectually. It is always best to let the composition remain on the work long enough to soften the whole of the paint so that there will be no occasion to use a knife to scrape with, and if the mixture is rightly made it may be washed off, and leave the wood as perfectly clean and free from paint as when it left the joiner's hands. The lime and soda must be thoroughly washed off, and the work allowed to stand for a day or two, before it is repainted. In doing any work of this kind which cannot be taken down, and must of necessity be stripped as it stands, the lime and soda must be mixed stiff, so that it may be spread upon the work with a pallete knife or a plasterer's trowel. Its thickness will keep it moist for a sufficient length of time to destroy the paint, but it may be occasionally wetted to prevent its drying, especially if the weather is warm. This is rather a dirty process, but that is the only objection we are aware of that can be urged against its use; on the other hand, it is a composition always at command and conveniently mixed at any time, and very simple in its application and effect. The operation of the various patented solutions for destroying paints are somewhat similar in principle to the lime and soda process (only much cleaner), and have to be used in the same manner: of late years we have found lime and caustic soda to be better than common soda. One mixture has been sent to us on the "no cure no pay" principle; it is in the form of a solution. It burns or softens the paint, but takes queer ways to do its work—it is applied with a brush. After it has been on some time its effect may, or may not, be perceptible, according to whether the atmosphere is dry or moist; if it is dry the composition will dry also, but if the next day is wet or damp, the work which has been done over with the composition will be wet and slimy, and so it alternates from day to day. We found that this did not answer, so returned it.

There are other solutions and pasty mixtures, some of which are very useful in other ways, as, for instance, in cleaning old paint pots and cans. It is a fact beyond doubt, and within the experience of most employers in the painting trade, that cans and pots cost more in men's time to clean them than they are actually worth. Now, if we fill a tub with any of these solutions, and place the dirty pots and cans into it, and leave them a sufficient time, the paint may be washed off, and they will be as clean as if new; or, what is better still, if we put the solution into a boiler and heat it, and then put the cans and pots into it, a few minutes will suffice to cleanse them, especially if we use caustic soda, and if we skim off the matter which rises to the top we may clean one lot of pots after another with the same solution. This is the cheapest and most effectual method of doing this necessary work.

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SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND REVISED FROM THE HIGHEST AUTHORITIES, ENGLISH AND FOREIGN.

CHAPTER XI.

SOME people have the notion that heraldry, with all its peculiarities and singular provisions, is a thing of the past, but recent occurrences will no doubt dispel these ideas. Just recently the King of Spain has been made a member of the English Order of the Garter, and the ceremony of his investiture with the trappings and insignia of that illustrious order, has been carried out with all the pomp and pageantry usual on such important occasions, a proceeding appearing on the surface to be more in accordance with ancient and mediæval times than with this utilitarian age. But human nature is the same in all ages, and all men are conscious of the honours so conferred, no stronger proof of which could be given than the fact that republican America has been re-arranging and disputing over the coats of arms belonging to each State of the Union, and her wealthy citizens are at all times anxious to have their pedigree traced and the coat armour of their family blazoned.

As interesting to our readers we give here the actual form of a grant of arms made at the present time by the Earl Marshal of England and his subordinates, the three Kings at Arms. Upon a sheet of parchment, about 26 inches by 20 inches, the Royal Arms are emblazoned, then the arms granted to the person named, also the arms of the Earl Marshal, the Duke of Norfolk, who is Hereditary Earl Marshal of England. The following is the text of the grant :—

"TO ALL AND SINGULAR to whom these presents shall come, Sir Albert William Woods, Knight Garter, Principal King of Arms ; Robert Laurie, Esquire, Clarencieux King of Arms ; and Walter Aslon Blount, Esquire, Norroy King of Arms, send greeting: WHEREAS, Thomas Chuck, of Fern Castle, in the Parish of Akeham, in the County of Durham, Esquire, High Sheriff for the said County of Durham, hath represented unto The Most Noble Henry, Duke of Norfolk, Earl Marshal and Hereditary Marshal of England, that, on an examination of the Records of the College of Arms, he is informed that armorial bearings have not been registered to his family, he therefore requests the favour of His Grace's Warrant for our granting and assigning such arms and crest has may be proper to be borne by him and his descendants and by the other descendants of his father, James Chuck, late of Salcombe, in the County of Durham, gentleman, deceased, according to the Laws of Arms, AND FORASMUCH as the said Earl Marshal did by Warrant under his hand and seal, bearing date this Tenth day of October instant, authorise and direct us to grant and assign such armorial ensigns accordingly, KNOW YE THEREFORE that We, the said Garter, Clarencieux, and Norroy, in pursuance of His Grace's Warrant, and by virtue of the Letters Patent of our several offices to each of us respectively granted, do by these presents grant and assign unto the said Thomas Chuck the arms following, that is to say, Ermine, three Cheveronells, Gules, between four eagle's heads erased, three in chief and one in base, Sable, Armed Or ; and for the crest, on a Wreath of the colours, out of the Battlements of a Tower, proper, a Demi Lion, Gules, gorged with a collar gemel Or, holding in the dexter paw a Sword, proper, and resting the sinister paw on an Escutcheon, Ermine, charged with an eagle's head, erased Sable, Armed Or, as the same are in the margin hereof more plainly depicted, to be borne and used for ever hereafter by him, the said Thomas Chuck and his descendants, and by the other descendants of his father, the said James Chuck, deceased, with due and proper difference according to the Laws of Arms: IN WITNESS whereof We, the said Garter, Clarencieux, and Norroy, Kings of Arms, have to these presents subscribed our names, and affixed the seals of our several offices, this Fifteenth day of October, in the Forty-third Year of the Reign of Our Sovereign Lady Victoria, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith, &c., and in the year of Our Lord One Thousand Eight Hundred and Eighty.

"ALBERT WILLIAM WOODS, Garter.
"ROBERT LAURIE, Clarencieux.
"W. A. BLOUNT, Norroy."

Under these names are appended their seals enclosed in metal cases, attached to the parchment by broad blue ribbons, the whole being enclosed in a box having the royal initials, V.R., surmounted by a royal crown impressed upon it in gold in five different places. Our readers will see by the foregoing example that the Science of Heraldry is not a thing of the past, but a real and tangible thing of to-day, and to enjoy its honour those who can afford and are desirous of being so honoured are willing and actually do pay large sums to participate in its advantages.

THE DIVISIONS OF THE SHIELD.

In the division of the shield it is supposed that when a warrior was desirous of adding another colour to his shield he drew a line perpendicularly from top to base, and it is then called *divided* or *Party per Pale.* The next operation was to divide the plain



PER FESS



PER-PALE

shield by horizontal lines—from side to side—and this was, and still is, denominated *Party per Fess,* or simply *Per Fess.* The next proceeding was, naturally, to cross the preceding lines, and thus produce what is termed *Quarterly.* This most simple operation being performed, the division by diagonal lines next followed, the lines being drawn from the dexter



QUARTERLY



PER BEND

corner to the left base. The same natural process induced the person dividing the shield to invert the

lines and draw them from the left, diagonally, to the right, making another partition called *Per Bend Sinister*. The next change was the perpendicular



PER-BEND-SINISTER

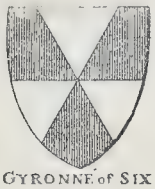


PER-SALTIRE

and horizontal lines. The two diagonals were crossed, and formed a sixth division. The combination of lines was not yet exhausted. They cut the *Saltire* horizontally in two and the *Chevron* appeared. Cross-



PER-CHEVRON



GYRONNÉ of SIX

ing the *Saltire* with a perpendicular line gave *Gyronné of Six*. There is another division which sometimes takes place, and is styled *Per Pale and Per Chevron*; and another, *Per Fess and Per Chevron*. The repetition of *Quarterly*, or the perpendicular and horizontal lines crossing each other several times in a shield, have produced the *Chequé*, and the same process with diagonal lines has generated the *Lozengé*.



PER PALE & CHEVRON



CHEQUÉ



LOZENGÉ

It is the opinion of some writers on heraldry that all these partitions of the shield have their origin in the cuts and bruises that were visible on the shield after a well fought field, being evident proofs that the bearer had been in the thick of the fray and had borne himself bravely. These marks, like honourable scars, caused the bearer of the battered shield to be held in great esteem, for which reason they were adopted as heraldic signs, and so passed down to posterity as certificates of honour to be borne by the family for ever.

From the shape of the line by which these several partitions are produced many other combinations may be obtained. The upper margins of the examples illustrated, which will be given in our January number, present the several variations of those in use in heraldry, with their proper names.

No. 1 is the simplest division or straight line.

No. 2 is scooped or escalloped, and is called *engrailed* if the escalloped side is on the inside, and *invected* if on the outside, and is blazoned *Per Fess* or *Per Pale* invected or engrailed.

No. 3 is an undulating line called *wavy*, and is often made use of in commemorating naval victories, and generally to represent waves. This line has also often been used, and is now as a bordure, as a sign of illegitimacy or bastardy.

No. 4 is called *embattled*, having derived its name from the battlements of a tower, castle, or other fortified place, and is generally used in preference when blazoning the arms of successful generals and captains in war.

No. 5 is taken from the shape of clouds, and from the Latin names *nubes* and *nebula*, in consequence of which it is called *nebulé* or *nebuly*.

No. 6 is called *raguli* or *raguly*, and is derived from ragged or rugged, as several alternate stumps, or *nodi*, interrupt the smoothness of the line.

No. 7 is the radiated, from *radius*, a beam or ray of light, thence called *rayonné*, and is composed of straight and wavy points alternately.

(*To be continued.*)

BOUND VOLUMES.

THE first bound volume of the *Journal of Decorative Art* will be issued about the 15th of the month, in a handsome cloth cover, gilt letters, price 9s., post free, 9s. 6d.; cases only, 2s. A reference to the Index, which is published with this number, will show the value the contents are to all engaged in the house-painting trade. The volume can be ordered through any respectable bookseller, and from the publisher, Mr. Henry Vickers, 317, Strand, W.C.; or direct from the head office, 1, St. James's Square, Manchester.

OUR PRIZE COMPETITION.

IMPORTANT.

We direct the attention of Competitors to the following alterations:—

SECTION I. CLASS A.

FRIEZE.—If desired, this can be made SIX feet long, but must not be *less* than four.

PANELS.—The size of the Door Panels to be 40 × 9 and 16 × 9, instead of 42 × 14 and 21 × 14, as given in the October number. Either wood panels, or canvas on sketching frames, can be used.

SECTION II. CLASS D.

PANELS.—The Panels in this class are reduced to the same size as in Class A.

We also beg to remind all intending competitors in the above scheme that December 20th is the time fixed as the limit for receiving names; we therefore respectfully request that all names be sent in at as early a date as possible, so as to facilitate our arrangements.

OUR ILLUSTRATIONS.

IN accordance with our promise we this month give another double page of Christian Emblems, &c., and two single pages of Designs suitable for Church and School Decoration at Christmas and other festive seasons.

The double-page illustration consists of five different designs, No. 1 being symbolical of the Holy Trinity. The two triangles intersecting each other have been, from the early ages of Christianity, adopted as a sign of the Trinity, the three points being emblematical of the Three Persons, but One God. The same meaning is also given to the trefoils at the inner angles of the triangles. In the centre of the design is the sacred monogram, "I H S,"* being the three first letters of the name of Jesus in the original Greek. The letters are I E S (US), the letter I being the same in Greek as in English. The six outer angles are occupied by rays of light proceeding from six suns, these being typical of the light of the Gospel penetrating to all parts of the earth. The whole is surrounded by a circle bearing an appropriate text. The circle itself is used as an emblem of eternity, being without beginning or end.

No. 2 bears a shield surrounded by a wreath of laurel. Upon the shield is an anchor and crown, the anchor being the emblem of hope, and the cross in which it terminates an emblem of faith. The crown is used as an emblem of majesty or of power. It also symbolises the hope and reward of the Christian's faith, that he will ultimately receive the "crown of glory."

No. 3 represents the pelican feeding its young with its own blood, a beautiful emblem of the Saviour giving Himself up for the redemption of mankind.

No. 4 is a very frequently used emblem of an angel singing alleluias to "God in the highest."

No. 5.—The form of this design is somewhat peculiar, and is thought to have been originally taken from the shape of a fish, the Greek word for a fish containing the initials of the names and titles of Christ—Jesus Christ the Son of God, the Saviour. The figure of a fish was one of the earliest Christian symbols. The rough outline of the fish, formed of two curves meeting in a point at their extremities, was also used to express the same symbolical meaning under the name of *Vesica Piscis*. This form, under the name of *Vesica*, was and is used to enclose the figure of the Saviour in the glorified state. Our design encloses within the *Vesica* a floriated cross resting upon three steps, these latter symbolising Mount Calvary, and they are sometimes considered to indicate the Trinity. Behind the cross Jerusalem is supposed to be seen in the distance. On the cross are the four letters of the inscription placed there by the Jews in mockery—"I N R I"—being the initial letters of the Latin inscription, *Jesus Nazarenus, Rex Judæorum*—Jesus of Nazareth, King of the Jews. This is, of course, only placed on the cross as an emblem of the Crucifixion. The three arms of the cross are encircled with a crown of thorns, outside of which are rays of light, showing that the sacrifice consummated on the tree will penetrate the four quarters of the globe with its beneficent influences. Outside of the *Vesica* are small branches of laurel. These are placed to show how an ornamental effect may be produced by simply placing a spray of natural leaves in symmetrical order.

* Originally written IHΣ, and intended as an abbreviation of ΙΗΣΟΥΣ, the Greek form of the word Jesus.

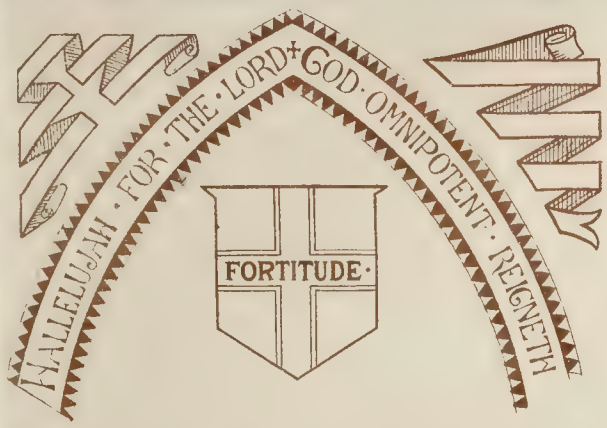
These designs, with the six given last month, are drawn to scale, and in using them they may be enlarged to any size required by simply doubling their present size once, twice, thrice, or six times. If this is done a proper proportion will always be maintained.

This series of emblems are designed specially for being executed in oil or water paints, as may be desirable, and they should be done in bold, strong lines, especially if they are to be placed at some distance from the eye.

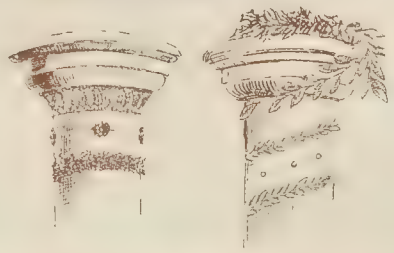
As regards colour a wide latitude is allowed. The principal colours which are in accordance with canonical rules are, white, red, violet, green, and black; but blue, as symbolising the heavens, is used quite as frequently as the others. White is generally used from Christmas to the Epiphany, and at all the feasts of our Lord and of the Virgin, and Saints who are not Martyrs. It is the colour for baptisms, confirmations, and marriages. Red is symbolical of the intensity of divine love, charity, and martyrdom. Violet, or purple, is used as a sign of mourning. Green is an emblem of the bountiful provision made throughout all nature for the sustenance and pleasure of all created beings, and may be used at all times. Black is used for Good Friday. In decorations for temporary use no restrictions are placed upon the use of any of these colours. Red, blue, and yellow, in combination with white, may be freely used in any of the designs—the lamb, pelican, and dove, while gold may be used instead of yellow with always good effect; but in all cases a better effect is obtained by outlining the design and every detail with a good bold line of black.

The sheet of leaf borders has been specially designed to show how single leaves may be arranged on geometrical lines, so as to form ornamental borders for enclosing mottoes, decorating fonts, gallery fronts, columns, altars, &c. In making wreaths and other decorations at Christmas time, thousands of single leaves are wasted. This need not be, as these examples show.

No. 1 is composed of single ivy leaves arranged at


HALLELUJAH · FOR · THE · LORD · GOD · OMNIPOTENT · REIGNETH
FORTITUDE ·


REJOICE
THE · LORD
IS · KING



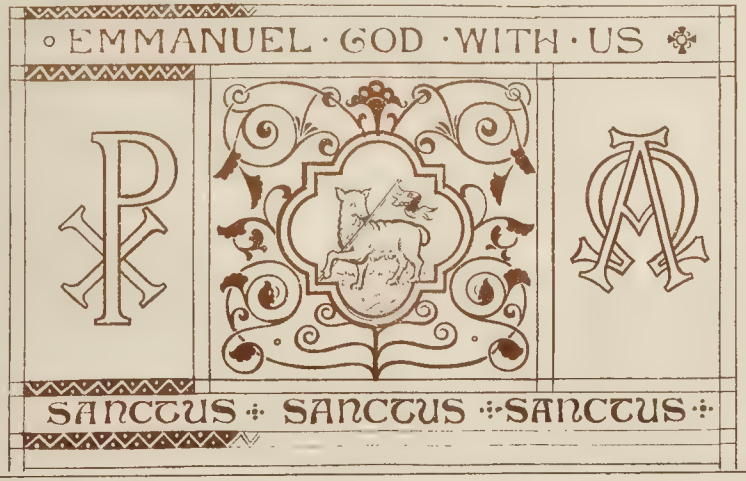



AMERRY XM


A HAPPY · NE

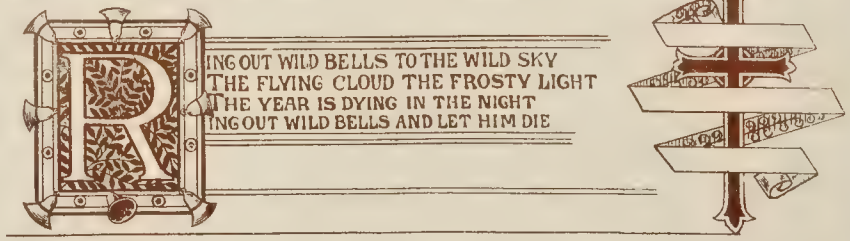

Behold · thy · King · cometh ·


ABCDEFGHJKLMPSTV


EMMANUEL · GOD · WITH · US
SANCTUS · SANCTUS · SANCTUS ·


AS


THOU


RING OUT WILD BELLS TO THE WILD SKY
THE FLYING CLOUD THE FROSTY LIGHT
THE YEAR IS DYING IN THE NIGHT
RING OUT WILD BELLS AND LET HIM DIE

equal distances from each other, having a single holly berry (either natural or artificial) placed between each. This is an exceedingly simple arrangement, but very effective. No. 6 shows two lines of the same as No. 1. The top line being reversed fits into the space between the other, and so forms another border on the same lines.

Nos. 2 and 3 are made with single laurel leaves, interspersed with flowers, placed at equal distances apart. Very effective borders may thus be made with very little trouble.

No. 4 is a geometrical arrangement of ivy berries, enclosed in lines. No. 5 is composed of holly and ivy leaves, with berries.

CHRISTMAS DECORATIONS.

(Continued from last month.)

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CHAPTER V.

Sweet is the Christmas in our childhood's pleasures;
In youth; in age; still is the matin chime
A sound that echoes thro' the heart's fond treasures;
Oh! well beloved is the Christmas time.

Shields and Devices.

IN devices the decorator has a very wide field and command of resources; the most general and popular are monograms—these can either be those of the church or school, and possessing some local application, or any of the sacred ones. The emblems given in our last number, and those issued this month, may be used with appropriateness. Of the various methods for producing these, painting in colour and gold is the best and most effective—indeed some of them can only be executed in this way—but very pleasing effects may be obtained with the simpler forms, as monograms, &c., by working them in everlasting flowers of various hues and colours, then, if these are surrounded by evergreens, a good result is secured. The *modus operandi* is very simple: get some perforated zinc, cut it to the shape you require, and then insert the stalks of the flowers through the perforations and fasten them behind, showing the flowers at the front. Another method is to cut out cardboard or thin wood painted or papered over; coat this with a strong paste, made from half flour paste and half glue size; on this fix the flowers only, cutting off the stalks previous to fixing. Where ground and devices are both composed of evergreens, or evergreens and flowers, it is necessary to use a perforated zinc surface, or, if for large work, open wire work will do. When you have settled on what devices you are going to have, it is as well to make a sketch and colour it, so as to get an idea what the finished effect will be.

CHAPTER VI.

Wreaths.

Wreaths are amongst the most important of all the materials which the decorator has to manipulate. Many ways of making them are adopted, but we think the following will be found to answer best:—Stretch a thin sash cord tightly between two given points—if in the schoolroom, and you can so arrange that the rope shall stretch across some forms, so much the better, as this holds it up and prevents "bagging" or bulging, which, without the support of the forms, it would do, and the making of the wreath is thereby facilitated.

For fastening the greenery on to the rope use fine wire, this is far better than string, as there is not that danger of loosening to which twine is always liable, and a slight twist is sufficient to fasten it quite securely. Have the greenery to your left hand in small heaps, well assorted; pick up the leaves you want, dispose them equally round the rope, and then, with the wire in the right hand, fasten them on—of course always working backward down the rope—the last leaves by this means covering the fastenings of the previous ones.

A great difference is found amongst wreath makers, some thinking that all that is required is to tie the leaves on to the rope, and they go on indiscriminately fastening leaves after leaves, without any regard to their equal distribution, with the result that one part is "starved"—you can see the rope as a thin line—while other portions are bulged to repletion. Care is demanded even in this apparently simple work, and it is worth much care and pains to do it well.

Additional value is given to the wreath by a judicious mingling of the various shades of green which are always at the disposal of the decorator; this should not be lost sight of, as attention to it oftentimes relieves what would otherwise be monotonous.

For many purposes, such, for instance, as twining round columns, flat wreaths are preferable and more economical than round ones. A very good way of making them is to procure some worsted binding and then sew the leaves and berries on, taking care that the ends of each succeeding lot of leaves cover the stalks of their predecessors. A wire ribbon covered with cotton is also made for this purpose, and this can be substituted for the binding.

In seasons when holly berries are not very plentiful resort may properly be had to artificial ones, as they add so very much to the appearance, whilst, for giving richness to the wreaths, artificial flowers, or, what is still better, the dryed and dyed everlasting flowers (gnaphaliums) can be used; care must be exercised in placing them, and they will be found an undoubted and valuable addition to the *répertoire* of the decorator.

When you have made your wreaths, the next question which presents itself is how you can best dispose them. This is a point that must be mainly settled by the individual decorator, as each room must be dealt with separately on its merits. This, however, we may lay down as a principle—try and arrange them so as to contrast with, or emphasise, the structural features. In rooms where architectural features are conspicuous by their absence, and there is a preponderance of plain wall and ceiling space, the scope for the decorator is proportionately greater, as then is the testing time of his capacity.

Let us imagine we have to deal with a long plain wall, unrelieved with any feature whatever, and broken only by the window openings. In such a case, we would first make a broad division between wall and ceiling, with a good bold frieze, which could either be ornamented with a design of leaves, similar to those given this month, or made a ground for a leading text or motto. We would then connect the windows with another band, either a design or a text. These bands tying the windows together, ought to be placed just beneath the spring of the window head, and if the bands be bordered with evergreens, these should also be carried round the window head.

We have now two broad bands running round the room. To break the stiffness of line which they inevitably present, we would droop festoons—those from the upper frieze being full in their make, to give dignity to their long sweep, and those underneath the window bands being light, so as to lend themselves to the short acute curves. These festoons effectually do away with any stiffness, and contrast agreeably with each other. On the plain spaces between the windows fix shields or devices.

In most schools there is generally a dark dado round the room. This will heighten the effect of the decorations considerably, especially if a narrow border of leaves be placed just on the dividing line.

It is oftentimes a necessity, where helpers are few, to commence making the wreaths some days beforehand. This can be done, and the greenery preserved quite fresh, by keeping them in some cold place, and occasionally sprinkling them with cold water.

CHAPTER VII.

BORDERS.

ON our second sheet of illustrations we give a series of borders, with the various leaves of evergreens as the *motifs*.

In making these borders with single leaves, it is important that they should be all as near one size as possible. It is not absolutely necessary that they should be so exact as shown in the drawings (although no two of them are exactly alike), but thousands may be selected quite near enough in size for our purpose. In fastening the leaves in the position each has to occupy, we may adopt one of two plans. Thin strips of wood, which should be somewhat less than half an inch in thickness, may be used for borders alone, and these should be cut to the proper length and width required, and then covered either with calico, coloured paper, or else painted. On these, the leaves may be fastened, with quarter-inch black tacks; in most cases, two to each leaf will suffice, but more may be used if required. The flowers and berries may be secured by using thick gum, or strong hot glue. The lines should first be marked out, and upon these the leaves must be placed, just as shown in the examples; or they can be made upon calico, holland, or prepared canvass, and the leaves stitched on with green or black thread. In doing this, the first stitch should be round the stem of the leaf, then twice or thrice—as occasion may require—across the body of the leaf. This plan will be found much better than going through the leaf with the stitches, and does not tear them, as the latter plan does. If the borders are made upon wood strips, brass-headed nails may be used instead of the holly berries, for, being round in the head, they make a very nice finish, and the light is reflected from each one. Paper or everlasting flowers, or balls of cotton wool, may be used in the borders. These only require a little gum to be touched upon the spot they have to occupy, and being placed upon this, they are held perfectly firm.

All borders should be enclosed in lines, and, for this purpose, no material is more suitable than coloured tape, which can be got in any colour and width. Border No. 4 on our sheet is an example of how narrow tape can be used. It may be fastened at the angles on wood with brass nails, or stitched on cloth or paper.

Leaves may be gilt, or bronzed, by covering them first with Japanners' gold size, and, when nearly dry, gilding with gold or silver leaf, or dusting them over with gold bronze powder. They may also be made white by strewing ground rice upon the gum, or the leaves may be cut out of imitation gold and silver paper. Holly berries may be made white in the same way. A very pretty effect is gained, after the devices or borders are made, by slightly sprinkling them over with clean water, and before this is dry, strewing white tissue paper (cut into very small bits) over them; the water alone is quite sufficient to cause the paper to stick, and it has a very "flaky," snowy appearance. Crystal frost can also be used for this purpose.

Amateurs do not avail themselves, to the extent they might, of stencilled borders. There are no difficulties in the way which the exercise of a little care and patience would not overcome, and there is certainly no other method which yields so good and



. Sutherland, Invt. A. A. Sutherland, Delt.

EXAMPLES OF SINGLE LEAF BORDERS FOR CHURCH AND SCHOOL DECORATIONS.

effective a return for the small outlay of time. Any professional decorator would supply a small stencil border ready cut, or would cut one to a given design, for a very nominal sum; but most of the borders required for the purpose of Christmas decorations could be cut by any amateur capable of drawing them. The materials are very simple: some cartridge paper, a little knotting, a penknife (kept well sharpened at the point), and a small piece of glass to cut on. For stencilling, use milk as the vehicle to fasten and mix your colours with, it is easily manipulated, requires no previous experience, and is always to hand.

There has been, for some time past, a material manufactured for temporary decorative processes, called Straw Tissue, which is admirably adapted for forming letters, crosses, &c. On dark grounds this material glistens and stands out like gilt letters. Rich crimson, dark maroon, or dark green flock papers, make admirable backgrounds, for inscriptions and devices made of this material, the absolute deadness of the ground heightening the brilliancy of the tissue.

In cutting out leaves or ornaments in coloured paper, it is always best to have the pattern cut out in tin. With this laid upon the paper, and a sharp penknife, they may be correctly and quickly cut out, and secured in their places with gum.

Natural leaves will keep fresh-looking a much longer time if they are varnished over with clear Japanners' gold size, or any other quick hard-drying varnish.

CHAPTER VIII.

Banners.

Banners are a very effective article in the scheme of decoration, but require judicious handling, as they are apt, in inexperienced hands, to become tawdry. Small bannerets, of the character of Nos. 1 and 4 on the November sheet, are the best for our purpose, and here we may mention that "Ecclesiastical" banners are suspended at right angles with the upright pole, and not attached to the staff itself like military banners and flags. In church work, where we have to be more careful than in schools, this should not be forgotten.

After the formal decorations are completed, a few plants and shrubs placed at various parts of the room, not in an uniform manner, but with a studied carelessness, give a great finish to the entire work.

We append a few texts and mottoes suitable to Christmas Decorations.

A Merry Christmas. A Happy New Year.
A Light to lighten the Gentiles. A Faithful High Priest.
Alleluia! Alleluia! Alleluia! Behold thy King cometh.
Behold I bring you glad tidings of great joy.
Behold a King shall reign. Emmanuel, God with us.
God sent forth His Son. God manifest in the flesh.
Glory to God in the highest, on earth peace, good will toward men.
Hosanna to the Son of David. Hosanna in the highest.
Holy! Holy! Holy! Lord God Almighty. Holy! Holy! Holy.
His name shall be called Wonderful, Counsellor, the Mighty God, the Everlasting Father, the Prince of Peace.
He came not to do His own will, but the will of Him that sent Him.
King of Kings and Lord of Lords.
The dayspring from on high hath visited us.
The Glory of Israel. The Lord our Righteousness.
There shall come a star out of Jacob, and a sceptre shall rise out of Israel.
The Lamb of God. The Lord of Glory.
The Root and Offspring of David, and the Bright and Morning Star.
Thou art the King of Glory, O Christ.
Thou art the Everlasting Son of the Father.
The Author of Salvation. The Finisher of our Faith.
There shall come forth a rod out of the stem of Jesse, and a branch shall grow out of his roots.
Thou shalt call His name Jesus.
The Sun of Righteousness shall arise with healing on his wings.
The Light of the World. The Ancient of Days.
Unto us a Child is born. Unto us a Son is given.
Unto you is born this day in the city of David a Saviour, which is Christ the Lord.

We shall always be ready to give any information as to materials and method of working in connection with festive decorations. A stamped and directed envelope will secure a reply direct, if required.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

BY THE EDITOR.

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Chapter XIII.—Rosewood.

THERE are a number of trees to which the name Rosewood is given, all of them valued for the great beauty of their grain and colour. Botanists have not ascertained the exact species to which these trees belong, but the Rosewood of commerce has been thought to be the produce of a species of Mimosa, a native of Brazil: it is also said to be the timber of several other species. Rosewood has for a long time been second only to mahogany as a furniture wood in Europe. Many different kinds are imported from South America, and are much used in veneering furniture and for musical instruments. The wood is very rich in colour, being of a dark brown intermingled with red, and beautifully grained with black and very dark brown; and when it is being sawn or cut gives out a strong scent, similar to the smell of roses, hence its name. It is procured principally from Para and Maranham, in logs usually about ten feet in length—each log is only half the trunk of the tree, being split in two, in order to make sure of its soundness. Violet-wood and king-wood are from

similar trees. The name Rosewood has also been given to several kinds of timber found in Jamaica, in Africa, and in Burmah. One valuable kind of Rosewood is the produce of an East Indian tree, *Dalbergia Latifolia*, also called Black-wood. It is found chiefly in Malabar, and grows to a height of about 80 feet. Planks of four feet in breadth are sometimes obtained after the sap-wood has been removed. The increasing value of the wood has led to the forming of new plantations, under the care of the Government of Madras.

Rosewood is not at present much in demand for imitation, although Rosewood panels and light oak stiles make a very handsome door, especially if the Rosewood is kept quiet in colour. In graining this wood we paint the ground of a subdued red colour made with Venetian red, burnt umber, and Oxford ochre. The graining colours are burnt sienna, vandyke brown, drop black, Victoria lake, and blue-black. We first damp down in the usual manner, then put in a light wash of burnt sienna, and with a sash tool and some vandyke brown and Victoria lake put in some broad irregular shades or patches, running up and down the panel (not across), leaving light spaces between. We then take the hoghair overgrainer, and a little blue-black thinned with beer, and draw this down over the light parts; then dip it into the drop black, and put in the dark veins, curling and crossing over the dark shades in almost an identical manner with that described in graining walnut wood. When the overgrainer cannot be used on account of its size, the pencil must be used to fill up and finish the grain (see the real wood). It will be found very conducive to the success of the imitation of this wood, as well as of others, if it is at this stage wetted again, and the whole softened with the badger-hair softener, and then touched up where required in the grain. It should now be varnished, and, when dry, glazed either in oil or water colour (using vandyke brown and Victoria lake for that purpose), and wiping out the bright lights which are seen on the curled parts of the grain in the real wood.

PITCH-PINE.

Pitch-pine has now for a number of years been in great demand in middle-class houses for doors, window linings, &c., and is generally varnished or French-polished upon the bare wood. This tree is one of the most useful timber trees that grow, and belongs to the natural order *Coniferæ*. The genus, *Pinus*, is distinguished by monœcious flowers and woody cones. The Scotch Pine, or Scotch Fir, is the only species indigenous to Great Britain. It has leaves in pairs about an inch and a half long, and cones about the same length, with unarmed scales. It is of quick growth, but has been known to reach the age of 400 years. There are still native forests of this tree at Braemar, and elsewhere in the Highlands of Scotland, and even in the South of Scotland noble trees are to be seen which probably were not planted by man. Immense forests exist in some countries of Europe, and there is a considerable number of different kinds, which we need not enumerate here; suffice it to say that large importations come from the Baltic ports and elsewhere to England. From the Dominion of Canada 289,441 tons of white pine was exported in 1876, and 37,040 tons of red pine. But it is the celebrated Pitch-pine of Savannah, in the Southern States, of which we speak here. This is a very valuable and durable wood, some of it being beautifully grained. We have ourselves some panels of this wood which are equal in beauty of curling grain to any other wood we know.

To imitate Pitch-pine the process, in part, is as near as possible that of oak graining. A light-buff ground made from Oxford ochre and white, with a little red and umber, produces a good ground; and in graining it we work out the centre heart and curl with the rag over the end of the thumb, and then take a broad open-toothed gutta-percha comb, and comb each side of the centre heart. We then take a duster, or what is better, a stiff hog-hair softener, gently draw the brush over the straight parts, and brush up the heart in the centre so as to graduate it. The glazing may be done when dry in the usual manner.

HUNGARIAN ASH.

Hungarian Ash is merely one variety of the common ash, of which there are about fifty species, mostly natives of Europe and North America. As a rule, the wood is white, tough, and hard, and is useful, in a number of ways, to wheelwrights, coachmakers, joiners, and turners. Sometimes it grows very irregular in its fibres, and thus becomes finely veined, having a curling grain full of beautiful silvery mottle, somewhat like the appearance of watered silk or moreen. It is very extensively used by cabinet-makers for bedroom furniture, and is often inlaid with other woods, making very elegant furniture indeed. This species is principally grown in the mountain forests of Hungary, hence the name Hungarian Ash.

It is a somewhat difficult wood to imitate, but we have found the best method to be as follows. The colour is very light, less yellow than maple, but of about the same shade, and may be done either in oil or water colour; but our plan is to grain it in oil colour first and glaze in distemper. The ground colour is pure white. We now use a graining colour mixed in exactly the same manner as for light oak, but with a little black, which takes off the yellow or red tone; use this rather thin. Then we take a pencil and a little darker colour mixed in the same way, and put in the larger grain, curling it round and

round as in the real wood. We now take the pencil overgrainer and the same colour, and run the grain in a wavy form, taking care to follow the undulations of the previous grain put in with the pencil. We then soften the curling grain with a small flat fitch and hog-hair badger to a dark edge. Another way of working the "curl" is to use a square-ended piece of gutta percha, about three-quarters of an inch broad, and work out the "curl" in the same way as the "sap" or heart of oak is done, then finish up to this with the overgrainer, as before described. When this is dry, we damp down the panel in the usual way, and brush all over it with weak beer and a light glaze of drop black and burnt sienna, the black to preponderate and only be sufficiently strong to show as a glaze. We then take a damp mottler and mottle it, leaving a light and shadow to each curl or wave of the grain. After it has had one coat of varnish, it may be brushed over with a very light wash of the same colour as it is grained with, and then flogged or stippled to put in the pores, or what is better, use the overcombing rollers to put in the pores.

Hungarian Ash in Distemper.—We damp down as usual, and wash over with weak beer and a light mixture of vandyke brown and a little drop black. We then mottle the panel very clearly and carefully, and soften well with the badger. When this is dry, we take a small overgrain, and the same colour, but with a little burnt sienna added, and overgrain in the curly wavy form spoken of above, and soften to a dark edge while wet. When this is dry, wet it again with a soft mottler, and stipple while wet.

(*To be continued.*)

MESSRS. MANSELL'S EXHIBITION OF CHRISTMAS CARDS.

Amongst the many indications of the near approach of Christmas, to be met with on all hands, none are pleasanter or more welcome than the displays of Christmas cards in the windows of our publishers and booksellers.

The happy idea occurred to Messrs. Mansell, of 271, Oxford Street, W., to set apart a special room for an exhibition of this season's productions, grouped under the names of their respective publishers. This plan, which we have not seen adopted before, enables the visitor at once to compare the specialities of each maker.

The enormous development which this special branch of art manufacture has undergone the last few years, both in quality and quantity, is gratifying in a dual sense as testifying to an increasingly wide-spreading feeling for and love of art amongst the great purchasing section of the public, and to a greater artistic capacity for designing and producing amongst the professional class.

Thanks to Messrs. De la Rue, for publishing a fac-simile of what is supposed to be the first Christmas card issued (published in 1846), we are enabled to arrive at some idea of the great strides we have made since that date, although this pioneer card was from the pencil of no less an artist than Mr. J. C. Horsley, R.A., and designed at the suggestion of Mr. Henry Cole. The card represents a very comfortable and jolly old gentleman, with his equally comfortable wife, surrounded by their numerous offspring, partaking of the Christmas meal. At the sides are representative groups disbursing charity and comforts to those less favoured than themselves. At the head, in one corner of the card, is the word "To," with a line for the name of the recipient, while in the lower corner is another line and the word "From." We manage things differently now-a-days, for it appears to be in many cases one-half the pleasure of sending to enshroud the gift in a sort of sweet mystery. This card is not merely interesting as a memento of the past, but it marks off the change which has "come o'er the spirit of the scene." The more general diffusion of education and culture has created a demand for something more artistic in its conception, and poetic in its feeling, than the wassail bowl or even the Christmas pudding. The numerous flower subjects which we meet with in all the makers, and the large and ready sale they command, is testimony to a love for the prototypes which is as gratifying as it is refining in its effects.

On the walls at Messrs. Mansell's are to be found the names of all the well-known firms—De la Rue; Marcus Ward; S. Hildesheimer; R. Tuck; Hildesheimer and Faulkner; H. Rothe; Eyre and Spottiswoode; Prangs, of New York; Lowell, of the same city; and Messrs. Mansell's own productions.

Attempting to give a description of the exhibits is a well-nigh impossible task; we may, however, give a word of well-earned praise to Miss Trowbridge for her free and spirited drawings of Children in Wonderland. The small sketches, in imitation of pen and ink drawings, of kittens and puppies, by Mr. Couldery, are worthy of note for their *verve* and "go." A series of photographic views carefully mounted, both plain and coloured, are not the least attractive of the many things shown, but the gems of this lot are some copies of bird pictures, drawn by Mr. Harry Bright. Amongst other novelties are some crewel worked cards and some pleasing little etchings of landscapes. The above are all Messrs. Mansell's own productions.

Messrs. De la Rue have a number of Mr. George Coleman's familiar and beautiful figure subjects; while some of their productions on satin are beyond all praise for their grace of line and exquisite harmony of colour.

Mr. Raphael Tuck, whose name and enterprise is familiar to the English public, is well represented. Amongst his collection are the Prize Designs of Miss Alice Squires: being a treatment of the Seasons, and representing incidents in rustic life. "Home for the Holidays" (four cards), pourtraying the results of putting six boys in one bed, are very humorous and taking.

Messrs. Prangs, of New York (who also got up a Competitive Exhibition of Christmas Card designs), have a number of their leading cards on view. The Premier Prize Design is very boldly conceived and drawn.

The cards sent by Messrs. Lowell are specimens of steel engraving, and are wonderful examples of the excellence to which this art is carried in America. Miss Thompson's clever and delicate work is to be found here, and has lost none of its charm or beauty.

Our space will not permit us to dilate on all we saw, but we commend to those of our readers who can, to pay a personal visit, and to those who are prevented by distance from accomplishing this, to send for Messrs. Mansell's list, and order a selected lot.

SPECIFICATIONS.

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DRAWING-ROOM—*Continued.*

Lincrusta Walton.	A very beautiful way of decorating the drawing-room is to use the Lincrusta Walton, and pick it out in colour and gold. In specifying this, however, care should be exercised to settle the amount of colouring to be done. As it is necessarily a slow process, and takes considerable time, we would advise that the cost only of the material and hanging be estimated for, and that the picking out be a matter of day-work.

HALL AND STAIRCASE.

Ceilings.	Ceilings to be washed, all cracks cut out, stopped, prepared, and painted five coats best oil paint, finished flat or dead.
Cornices.	Cornices picked out in harmonious tints of colour, and the cornices of the hall to be slightly relieved with gold.
Walls.	Walls to be rubbed down, stopped, prepared, and painted three coats best oil paint, finished flat or dead. It is sometimes desirable to leave the staircase plain, and only put the dado on the hall, especially if there is a good structural separation. When this is so, specify how it is to be done.
Woodwork.	Woodwork to be well rubbed down, stopped, prepared, painted three coats best oil paint, finished in self colours, and twice varnished with best copal varnish, rubbed down with ground pumice-stone and water between the coats.
Gilding.	A line of gold to be run on the mouldings round the door panels and the architraves.
Decoration.	The panels of the doors in the hall may with propriety be decorated in a simple, severe character, but the plain work is better, as it gives more value to the decorated work of the rooms.

Banisters	See page 108.
Stair-treads.	Stair-treads to be rubbed down, prepared, and painted four coats white lead paint, finished in a light cream-coloured enamel.
	BEDROOMS.
Ceilings.	Ceilings to be washed off, stopped, prepared, and whitened.
Walls.	Walls to be stripped, rubbed down, prepared, and painted with three coats of the Silicate distemper. This makes a beautiful medium for bedroom wall decorations, artistic and wholesome.
Woodwork.	Woodwork to be well rubbed down, prepared, and painted three coats plain to match the wall work.

The Specification for the remaining portions of the house can be taken from the August and September numbers of this journal.

In drafting out a Specification of the general character that this must necessarily be, we have only aimed at giving our readers the best method of constructing one. As each actual Specification has a localisation and pertinency of its own which we could not affect to know, we have also restricted ourselves to houses of a moderate calibre, as being most applicable for the use of the bulk of our subscribers.

We propose, in the new year, to commence with some articles on HOW TO MEASURE UP AND PRICE PAINTING WORK, as this is a point on which there is a great diversity of practice and want of knowledge, and one, therefore, on which some practical hints will be found useful.

Trade Intelligence.

THE value of having fine ground colours in collapsible tubes for decorative purposes, has long been demonstrated; they keep much longer, are always clean and free from dirt, and can be used just as required. Messrs. Wilkinson, Heywood, and Clark make an announcement in our advertising columns that they are now supplying the trade with the finest ground colours in these tubes. To members of the trade who have not yet given them a trial we can confidently recommend them.

"CAPTURED DAYLIGHT" is the name given to a paint possessing the remarkable quality of appearing as a white paint in the day time, and luminous at night. The luminosity of the paint we saw effectually demonstrated the other day at the offices of the English agents, Messrs. Ihlee and Horne, Aldermanbury, E.C. A piece of glass, the size of an ordinary slate, painted with this white, can be carried in the hand as a lantern, and by its aid one is enabled to go into a dark room and see sufficiently to find any article. For places where there are any inflammable materials about, the safety this affords is incalculable; for painting the names of streets, numbers of doors, guide-posts in country districts, &c., this mixture is most valuable. We have had many enquiries of late as to where it can be obtained, and we may, for the benefit of our readers, state that Messrs. Pontifex and Wood, of Shoe Lane, supply the trade with it, and that the Manchester Agent is Mr. Fardon, at the British Architect Museum.

THE success of the "Lincrusta Walton" as a wall covering has had the usual result of provoking many rivals, the latest of which is the Subercorium, a composition having cork and indiarubber as its component parts, and being pressed in relief in the manner of embossed paper. This new wall covering has considerable claims on the decorator, as it presents all the appearance of embossed leather-work. It is supplied in plain colours for painting, or already coloured. We are afraid, however, the present prices will militate against its general introduction. The proprietors are Messrs. L. Jeune & Co., of Queen Victoria Street, E.C.

Messrs. J. B. Orr and Co. have received the award from the Adelaide Exhibition of the Gold Medal for their well-known silicate paints—a fact we are pleased to chronicle.

Answers to Correspondents.

All questions should reach the office not later than the 15th of the month, so as to ensure being answered in the succeeding number.

MR. S. WATT, BANBRIDGE.—Any of the solutions mentioned in our "Preparatory Processes" in the present number will clean smoke and grease off walls, but will require care in using, for if too strong they will bring paint and all off.

J. STUBBS, QUEEN'S PARK, HARROW ROAD, LONDON.—The best plan is to fold in centre, over which, at the back, a strip of paper or calico should be pasted, so as to enable the binder to fasten the strip to the binding. This plan does not injure the plate at all.

T. JACKSON, HEANOR, DERBYSHIRE.—The proper acid to use for embossing on glass is hydrofluoric acid. If you will refer to our back numbers, and read the articles on etching on china, you will see an account of the acid, the processes for glass and china being almost identical.

MR. KEELING, NOTTINGHAM.—David Hay's work on Harmony of Colour is now, we believe, out of print many years. Your best plan would be to write to Batsford, bookseller, Holborn, London, who is most likely, of any one we know, to have second-hand copies. We believe the business of D. Hay is still carried on, but under other names.

J. HEYWOOD, OLDHAM.—There is a special ink made for ticket writing, but ordinary japan ink is used also. Many stationers keep it. It is smooth and glossy. The paper used is the ordinary cardboard or cartridge paper. Paint mixed with oil and turps will not do, but quick colour, made with japanners' gold size and turps, will answer the purpose, but not so well as the special ink.—With regard to the blooming of the carriage varnish you name, you should read what we say in the May number of this journal. The fault is in the varnish itself. We have found that the bloom can be removed by rubbing the work over with sweet oil, and then cleaning the oil off with flour and well rubbing with a clean wash leather. Another plan is to wash it well with water as cold as it is possible to get it, and wipe off and polish with the wash leather. But the best plan is to cut down the work with fine ground pumice stone and felt, and then give it another coat of varnish that will not bloom, of which there are plenty made. See our advertising columns.

HENRY SHANLY,
MANUFACTURER OF
GOLD & SILVER LEAF & BRONZE POWDERS,
30, RED LION SQUARE, LONDON.
PRICE LISTS UPON APPLICATION.



PAINTING

DECORATIVE FIGURES.



A. A. Sutherland, Delt.

l Design. ——— by W. G. Bailey.

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] JANUARY. [PRICE 7D.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

INTRODUCTION.

IT is a usual practice on the commencement of a new volume to preface it with a summary of intentions for the year. Whether this custom is more honoured in the breach than the observance thereof we will not say. In our case, however, we think it not out of place, to state, that we shall continue the Technical Chapters throughout the present year, and every endeavour will be made to embody in them as much practical instruction in each particular branch of the subjects, as we have done in the past. Under the head of Materials and Tools, we shall continue to note everything that may be interesting and useful to the trade. Our chapters on Heraldry, having been so much appreciated, will be continued. We shall give a series of coloured plates during the year, of Decorative Works, accompanied by detailed descriptions of the colouring, &c., which we hope will be both useful and instructive to our subscribers. We shall continue to note all matters of interest affecting the trade generally. During the year, several important questions will be ventilated, and we hope to make the journal in the future the most valuable, as it is at present the most practical, of any existing publication, relating to the House Painting and Decorating Trades. We beg to inform our subscribers that we have now re-printed Part I. of the Journal, and shall be able to supply the numerous applicants for it, so as to enable them to complete the first volume. We have also a few of the first year's volumes, handsomely bound, with gilt letters, price 9s., post free 9s. 6d.

VOL. II.—No. 13.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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CHAPTER XIV.—DECORATIVE PROCESSES.

CAUTION! In our article on paint solvents in the December number of this journal, we omitted to impress upon our readers, the absolute necessity, in using any of these chemical solvents, for removing every trace of them from the wood after they have dissolved the paint. If this is not done the solution remaining in the wood, is very apt to injure, and in some cases to destroy, the paint which is afterwards put upon it. We have always adopted the plan of giving the wood work from which the paint has been removed one or two coats of patent knotting before painting again. This we have found to be very efficacious in preventing any injurious consequence resulting from the use of these solvents. In a letter received from Messrs. Wilkinson, Heywood and Clarke, in which they kindly remind us of our omission of this caution, they say: "We have known many cases when, after a few months, new paint or varnish laid over wood that has been cleaned by one of these patent solvents has been utterly ruined. We never sell or supply to any one a single gallon of any of these solvents, without cautioning them as to the danger of their use, and do our utmost to endeavour to discourage the use of them."

We ourselves have had cases where injury has been done to the after painting, but this has entirely arisen from causes completely within the control of the workman. If the work is not properly cleaned and washed repeatedly with water, there can be no doubt but that injurious effects will follow, but if proper care is taken, and the work coated with knotting, no injury to the new paint can result, at all events that is our opinion, grounded on a long experience in the use of the soda and lime process, as well as other solvents; as in many other matters, the evil does not rest so much with the use as the misuse.

We now, after giving in our previous chapters, a full description of the various preparatory processes used in bringing up oil and distemper grounds to a state of readiness for decorating, enter upon the various methods and manipulative processes, used in the production and application of ornament, both flat and in relief, to surface decoration.

The application of decorative ornament, in order to be successful, must be suitable, appropriate, and proportionate; suitable in fitness for the purpose it is used for, appropriate in having a purpose and a meaning, and proportionate in size, to the space it has to occupy. This will be at once evident if we contrast two or three instances: For example, ornament which would be suitable for the diapering

or bordering, of the chancel of a church, would be out of place if used in a dwelling room, or on a piece of furniture; in the former case, the ornament will require to be somewhat large and open in pattern, in order that it may be seen at a distance, the colour also will require to be strong and positive in tone. This is all the more necessary, inasmuch as small or intricate ornament becomes confused when seen from a distance, and thus the effect is lost; on the other hand, if it is proportionate in size, it will be clearly defined, although seen from the furthest seat in the church. But all work which is near the eye, and can be minutely examined at any time, will require to be carefully and correctly executed, with firm, sharp, and clear outlines, and, when required, outlined with black or other colours; of course, sharpness of outline must not be confined to small ornament alone, but is essential to both, if we would have good work. The character or style of ornament is a very essential point in its application; whatever the style of the building may be, whether Gothic, Greek or Italian, our ornament should be designed and be characteristic of that style, and not a jumble of all styles. In designing the ornament for any particular room, the panels of the doors, the ornaments on the ceiling and walls, while having many points of difference, as a necessity of their positions, should yet have a family likeness, or be sufficiently alike in certain essential points, which stamps them unmistakeably as belonging to the same style as a whole. In outline, in colour, and distribution of parts, they may be all different, and yet alike. This may appear to some persons as an unnecessary repetition of a self-evident fact, but every-day experience goes to prove the contrary. We need but to enter two-thirds of our public buildings and private houses, to see hundreds of instances of the misapplication of ornament and colour; a conglomeration of incongruous ornament, out of taste, out of colour, and totally out of all keeping the one with the other. There is a degree of mental blindness to what in themselves are plain, self-evident facts which is truly lamentable. Day after day men go on perpetrating gross blunders in these matters, which one would think only required a moment's thought in order to perceive and remedy. We therefore cannot too often urge the desirability of, and the necessity for—the young student especially—striving to avoid these errors, as being alike destructive of the true application of ornament and colour. It is an old saying, and a true one, that we are taught by our failures, but we almost as often, gain knowledge by other people's failures. It is well to know what to avoid—a species of knowledge of great value in decoration as well as in other matters. Another valuable acquisition, gained only by experience, is to know when we have done enough; many otherwise successful works are spoiled from the want of this. Let well alone is an old adage, none the less true for all that. It is surprising the faculty we have for seeing the defects in other people's work. If we are not beyond improvement we do not know but that this perceptive power is an advantage, inasmuch as it teaches us what to avoid, which is, in most cases, half the battle, perfection being simply the absence of error. A knowledge of drawing is, of course, absolutely necessary to enable us to design ornament, the facilities for acquiring such knowledge being, fortunately, at the present time within reach of the humblest individual. We remember a time when instruction in drawing from qualified masters was only within the means of the comparatively well-to-do classes, and utterly out of the reach of the working man's children. Looking upon the advantages within the grasp of all which now exist, we look back regretfully to years of our life spent in acquiring knowledge, and that of the best, which may now be had by the asking for, and we are glad to see so many young people of both sexes, availing themselves of the means so liberally placed within their reach, for improving themselves in all branches of trade and art workmanship, and these means we trust will be still further increased by the establishing of technical schools, and technical classes in every educational establishment, so as to enable the young, to acquire a fund of practical knowledge in their particular trade. When this is done, and not till then, we may hope to hold our own, in any and every branch of trade.

Stencils and Stencilling.

Stencil patterns play a very important part in the application of ornament to surface decoration. Their value and usefulness cannot be over-estimated, as by this means, ornament can be multiplied to any extent at comparatively small cost, thus enabling us to adorn and beautify, what, if it had to be done by the pencil, would simply be left undone on account of the enormous cost involved. The great strides taken in the path of improvement by the decorative trades since the Great Exhibition of 1851, has, of necessity, increased the demand, and fostered the designing of ornament expressly suited to being executed by stencils. All ornament is not adapted for execution by this method, inasmuch as although a certain class of ornament may be done by stencils, in two or more colours, so as to appear partly in relief by the effect of light and shade, still its most essential feature and most useful purpose is the multiplication of flat ornament, *i.e.*, ornament in one or more colours, without light or shade or any attempt at the appearance of projection.

The use of stencil plates is of great antiquity. So early as 1440 they were used to print the dots and figures on playing cards, and for various other purposes, and their use has been more or less practised ever since, the simplicity of action being one great inducement. The artist or designer has merely to furnish the stencil, and the design, being once cut, can be executed by workmen having no knowledge of drawing whatever. Any ordinary workman may do the stencilling under the supervision of the decorator, the actual operation requiring only ordinary care, and a little practice, to do it properly. It is this fact which makes the process so valuable to the decorator, and so universal in its application.

In designing, or adapting ornament for stencilling, we see that a knowledge of drawing is indispensable. This is a fact so discernible to all, that we need not

dwell upon it here. There are, however, certain methods, and simple means which may be used, and which are constantly used, in the getting out of designs for stencil ornament, which methods tend to facilitate the doing of the work, and which we may with advantage describe. The principal of these are tracing, pouncing, and transferring. In using the word tracing, here, we do not mean it in the ordinary sense, *i.e.*, to copy an ornament by placing a semi-transparent tracing paper upon it and marking the lines as they appear through it, but in its practical and really useful sense. In sketching or designing an ornament which will have two equal sides, that is to say, two sides which shall be each a counterpart of the other, a perpendicular line is first drawn, marking the centre or division line of the design. This may be done on white or coloured lining paper, being the full size of the space the ornament has to occupy. We now sketch one half of the design on the paper, keeping to one side of the division line, using sticks of charcoal to sketch with. We then fold the paper exactly at the middle or division line, with the charcoal sketch downwards, and rub the paper well with the flat of the hand on the back side, or with a folded cloth or rubber. When the paper is unfolded it will be found that the charcoal has transferred an impression of the design to the other or blank half of the paper, being, of course, a *fac simile* of the charcoal sketch, and we are thus enabled to see the effect of the complete design. The advantage of using charcoal to sketch with, lies in the fact, that any portion of the design that we may wish to alter, can be done, simply by dusting off the charcoal, and re-sketching, folding and rubbing again until we are satisfied with the whole design.

(To be continued.)

OWEN JONES & HIS CONTEMPORARIES.

Augustus Northmore Welby Pugin.

THE old saying, "Truth is stranger than fiction," is constantly being exemplified in everyday life. The history of the Pugins, contains elements of romance, unsurpassed by the wildest flights of fancy ever indulged in by the elder Dumas, or Victor Hugo.

The first of the three generations of this gifted family who settled in England,—Augustus Pugin,—was born in France, in the year 1762, and had to flee his country in consequence of a duel, during the stormy time of the Revolution. It is indeed said, that he fell during one of the sanguinary struggles common to that period, and was thrown, with some hundred other bodies, into a pit near the Place de la Bastille, but that, escaping from the place by swimming across the Seine, he fled to Rouen, and then sought an asylum in this country.

After a somewhat precarious existence, at times being reduced to great straits, in consequence of his limited knowledge of the English language, he was successful in obtaining employment under the celebrated John Nash, the architect of Regent street and Waterloo-place. After a time, the elder Pugin, at the suggestion of Mr. Nash, set himself to procure materials for a work of an authoritative and authentic character, in the form of drawings of old work; these came at a time, when there was an awakening desire for some safe standard of reference, and met with unqualified success. In 1808, Pugin was elected an associate of the Old Water-Colour Society, and was a constant contributor to their Exhibitions. He was also employed by Mr. Ackermann, the publisher, to draw the Architectural details, of "Microcosms of London," published in 1808-11.

In 1821 he published his "Specimens of Gothic Architecture," which was succeeded by "Antiquities of Normandy," "The Edifices of London," "Gothic Examples," "Antient Timber Gables," "Paris and its Environs," all of which are useful for reference, and, at the time of their appearing, came as a new revelation to the architectural world, steeped, as it then was, in the monstrosities of a pseudo classicism, which was just then the fashion.

To the elder Pugin, must be given the credit of pioneering the movement, which his son carried forward with so much energy and success. Pugin's wife was a woman of remarkable character. Ferrey, who was an articled pupil with Pugin, senr., and contemporary with A. N. W. Pugin, in his recollections of the latter, gives a very graphic and entertaining account of the system which prevailed in the household presided over by Mrs. Pugin, and the stern discipline which she enforced. From parents, both of whom were gifted in no ordinary degree, A. N. Welby Pugin inherited a large portion of his remarkable genius. He was born in London in the month of March, 1812. As a child he was very delicate, and required much anxious care from his mother. At an early age he was entered as a day scholar at the Bluecoat School in Newgate St., City, and very soon began to display that aptitude for acquiring knowledge, which was a distinguishing trait in his character in later years. Even in these days, he expressed his opinions in a dogmatic and vehement manner—a habit which grew upon him, and in after life alienated from him many whose friendship might have stood him in good stead.

Another habit which he permitted himself to fall into as a child, much to the concern and disquietude of his mother, and one which stuck to him to the end of his life, was his negligence of his own personal appearance. It is related of him that on one occasion, after a trip on the Continent, he essayed to enter a first-class carriage at the Calais Station, and was accosted with the words, "Holloa! my man; I'm afraid you have mistaken the carriage." "By Jove!" retorted Pugin, "I have; I thought I was getting into a carriage of gentlemen." This unexpected reply immediately produced an apology, and, entering into the carriage, the journey to London was pleasantly spent examining the sketches in his portfolio.

After leaving Christ Church, he entered into his father's office. His power as a draughtsman was intuitive and very remarkable, and only equalled

by his capacity for work. His mother, writing from Paris to her sister, when he was but a child, says of him: "He does not dislike a little play, but he works infinitely more than he plays."

In 1826 he went down to Rochester, and made a most complete and accurate set of drawings of the Castle; excavating to ascertain thoroughly the plan of the foundation, his intention being to make these the first of a series of drawings on castles—an idea he never realised however, his attention being directed into other channels.

In 1827 he again visited France with his father on a professional tour, rendering him great assistance by his facile pencil.

About this time, when he was only fifteen years old, he got his first commission from Rundell and Bridge, the celebrated goldsmiths, and shortly after received instructions from Mr. Morel, a French upholsterer, to design anew the furniture for Windsor Castle. This he did; and though in later life he severely condemned these early efforts, nevertheless the fact remains a somewhat unique tribute to his abilities. Thus far, the life of Pugin had run in grooves not very much out of the accepted and routine course, but the next five years of his life were crowded out with events of dramatic interest and startling intensity.

At Windsor, he met with a man who was employed as a scene-shifter at some London theatre, and his description of the scenery and mechanism of the stage so filled the mind of the lad with longing to see them, that he determined, contrary to the wishes of his mother, to visit the theatres himself. His inventive genius soon detected many shortcomings in the mechanical arrangements which he saw, and he immediately set himself to devise new and improved methods. He obtained an introduction to Messrs. Grieve, the celebrated scenic painters, who gave him sufficient insight into the manipulation and handling of distemper painting on canvass to enable him to paint scenery himself. This he did, and his architectural knowledge was now of excellent service to him. He was commissioned to design and paint the scenery to the new opera of "Kenilworth," and achieved a great success. After a time he became wearied of this branch of art, and developed a most insatiable desire for a maritime life. A writer in one of the papers, commenting on his decease, says that he heard him once declare "that there was nothing in life worth living for but pointed architecture and a boat." He bought first a small boat, then a smack, and afterwards a schooner, in which he traded along the coast of Holland and Flanders, combining with these mercantile pursuits the zeal of an archeologist, for he rarely returned home without bringing with him carvings, or other objects of interest, which he kept to augment his collection. It was on one of these voyages that he and his men were wrecked on the Scotch coast, near to Leith, barely escaping with their lives.

His next venture was the founding of an Art Work establishment, which was to produce Art Work of every class for building and furnishing purposes. This enterprise was most disastrous in its financial results, and he was only saved from absolute ruin by the intervention of friends.

In 1831 he married a Miss Garnet, who, unfortunately, died the succeeding year in childbirth, so that, before he had attained to the years of manhood, he had condensed into his twenty years experience sufficient for a lifetime.

Sobered by these accumulations of troubles, he now devoted himself seriously to his business. The reputation which his father had established, and the intimate acquaintance which he had with all the varied forms of Gothic Art, caused him to be consulted on matters of detail by numerous members of the architectural profession. Undertaking a series of visits to our cathedrals, his indignation was roused to boiling point by the neglected state into which he found they had been permitted to fall, or, what was worse, their almost destruction, under the name of restoration. This so preyed upon his mind that he came to the decision that had the Roman Church been the conservators of these buildings, she would not have permitted them to fall into so disgraceful a condition. This conviction, and the concomitant one, that the Papal ecclesiastical system was the truest patron of Gothic Art, decided him to abandon the Protestant faith and join the Romish communion. With the proverbial zeal of a convert, he threw himself ardently into the task of demonstrating the truth of the position he had taken up. His ardent love for Gothic Art carried him at times, unconsciously no doubt, beyond the bounds of prudence or fair play.

(To be continued.)

ON THE MATERIALS AND TOOLS USED BY THE HOUSE PAINTER AND DECORATOR: THEIR PROPERTIES, COMPARATIVE VALUE, AND USE IN THE TRADE.

Brushes and Bristles.

THE Bristles of which painting brushes are made, are the strong hairs, grown upon the back of the hog and wild boar. They form a very important article of British import—two or three million pounds being imported annually into this country; the best and largest quantity coming from Russia and Germany, and some from France and Belgium, and also from China. It is a most singular fact that the best bristles are produced by the thinnest and poorest of pigs; the more spare, thin, and hardy the hog, the longer and stiffer the bristles. When the Russian hog is sent to the south and fattened, the bristles become soft and without spring, and are, of course, depreciated in value. In the summer the hogs are driven in herds through the forest to feed on soft roots, and while there, rub themselves against the tree trunks, and thus shed their bristles, which are then collected and sewn up in ox or horse-hides, and sent to fairs, whence they find their way through agents to all countries.

The selection of good brushes is of the utmost importance to the house painter and decorator, and









W. Sutherland, Invt.

A. A. Sutherland, Delt.

also a matter of some difficulty, inasmuch as it requires a very large experience to enable any one to form a correct estimate of the quality of a brush, before it is tested in actual work. As a rule, brushes are purchased on the faith of representations made by the vendor, and it is not a usual practice for the fishmonger to cry "stinking fish." In brushes, as in almost everything else, there are good and bad makers of these articles. It is always the safest and best plan to deal with a first-class house who cannot afford to sell a bad brush under the pretence of its being a good one. Good brushes are always expensive, and it may be relied upon that if a vendor of brushes tempts us with quoting a low price, his brushes will not, as a rule, be worth anything like the money he asks for them, and will be dear at any price, especially if we take into consideration the loss of time, and the inferiority of the work produced, by the use of a bad brush instead of a good one. All practical men know that a well made brush, having the best bristles in it, will last twice as long in actual wear as an inferior one, and we can only repeat that a cheap brush, is dear at any price.

The bristles of which the best painting brushes are made are Russian; there is, however, such a great variety of sorts, lengths, colours, &c., that a full description would occupy pages of our space. Each variety, mostly have their Russian names, telling of the locality from whence they come, and in some cases the name of the trader who collects them. The German bristles, are both inferior in quality and quantity to the Russian goods, and are generally unfit for making good painting brushes and are, therefore, used only for common ones. Bristles vary in length, from two, to nine, and sometimes even ten inches, but when they exceed six and a half inches, they are generally weak and impoverished. They are of several colours—white, many shades of yellow, black, and a mixture of the above, called greys. Although brushmakers can detect no difference in the properties of variously coloured bristles when they are of the same quality and length, yet the painter usually prefers to have his brushes all white bristles, simply because he feels no doubt about their quality; being white he can see and judge for himself, and he is less liable to be imposed upon by having horse hair or bad bristles palmed upon him in lieu of good ones. This fact alone has caused so great a demand for the best class of bristles, that the price of the white ones, has risen very high indeed. The market value of bristles depends on colour, length, quality, and solidity; the white, the long, the stiff, and the solid, of the different sorts fetching the highest prices. The cost of bristles in the rough varies at the present time from £8 to £45 per hundredweight. The best bristles for making painting brushes are the first Siberia Okatka, black, white, and grey, which are quoted at £45 per hundredweight; these bristles are five and a half to six inches long; the next price is £32 per hundredweight. Kamtchatka firsts fetch £30 per hundredweight. Suchoy firsts, £20 per hundredweight; seconds, £13 per hundredweight. Another kind is quoted respectively £22, £17 10s., £16 10s., £12, and £8 per hundredweight. It will be seen from the above quotations* that the difference between £45, the highest, and £8, the lowest, present price per hundredweight admits of painting brushes—like tea—being sold at any figure. A judicious mixture of the worst with the best means very large profits indeed. It has, no doubt, been a puzzle to the painting trade, how it was that one firm could offer a brush apparently of the best quality for 2s. 3d. or 2s. 9d., while another firm cannot sell them under 4s. 0d. or 4s. 6d. each. If we look at the above range of figures we may easily solve the mystery for ourselves. £45 per hundredweight seems a very high price, but there is no reason for supposing that it will be lower; bristles have increased in value amazingly during the last twenty years, and the reason is simply that the production of the best sorts is limited, and the demand is daily increasing.

The best painting brushes are made of bristles entirely, but, unfortunately, in the brush trade, as in too many others, adulteration is extensively carried on, and so cleverly is this done that it requires a practised eye to detect the fraud. Bristles are so peculiar in their formation and appearance, and, like feathers, have such a distinct character, that there are but two materials yet discovered, with which they can be mixed; without risking immediate detection. These are horsehair and the fibre of the American aloe. When horsehair, in small quantities, is mixed with the bristles, its detection in the brush is very difficult, and requires a very careful examination by an experienced person. No rule can be given by which a painter could obtain a reliable result; he, however, soon discovers there is something wrong when he comes to use it. It is only when a large proportion of horsehair is used that he can suspect or discover it before using; the brush having but little spring, is limp and weak, and instead of wearing square and even at the point or end of the brush, will twist part one way and part another, make bad work, and good work cannot be done with it. But to detect horsehair before using it, he would have to become practically acquainted with both horsehair and bristles.

Fibre alone, and in combination with horsehair, is largely used in the manufacture of the lower class of painters' brushes. This fibre is from ten to twenty inches long, of a whiteish colour naturally, but may be easily dyed to suit the various purposes for which it is used, and being about one-tenth the value of the bristle it is made to represent, offers great temptation to the unscrupulous trader. It is astonishing how many thousands of painting brushes are made annually for home consumption only, which most likely do not contain as much as one-third bristles—and those of the poorest quality—the remaining two-thirds being horse hair and fibre. Yet they look well to the inexperienced eye. Now, the vegetable fibre can be easily detected, even though a small portion only is mixed in the brush. The brush loses its elasticity, the fibre bending easily enough, but not springing back again like a good bristle—it is harsh to the touch. If a few

* We are indebted to the courtesy of Messrs. Crowden and Garrod, the eminent painting brush manufacturers, of Falcon Square, London, for the above list of present prices of bristles.

bristles are rapidly bent at a sharp angle, they will soon resume their original positions, which the fibre will not do. The surface of the fibre is not so smooth as the bristle and has much less tenacity. If a suspected hair is pulled out of the brush, and the end burnt in a flame, it will curl up, the smoke having the peculiar odour of burnt hair if it be a bristle or even if it is horsehair; but if it be fibre it will burn away and leave a white ash. Fibre is very useful when made into stock brushes for rough lime washing, or for using with caustic soda or other material of the like nature, as the alkalies do not soften it or affect it in the least, while they gelatinise and utterly burn up bristles.

(To be continued.)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

CHAPTER XII.

NO. 8 is the *Angled* line, a plain line broken up in the middle by a right angle.



No. 9 is the *Indented*, in the shape of a saw, and derives its name from the Latin word *dens*, a tooth.

No. 10, the *Dancetté*, nearly the same as the indented, differing from it only by the teeth, which ought to be deeper and wider, and not exceeding three in number, is mostly employed to distinguish a Fess.

No. 11, the *Bevelled*, is seldom used, and differs from the angled only in this, that the interruption of the line is an acute instead of a right angle.

No. 12 is the *Escartelé*, and 13, *Noué* or *Nowy*.

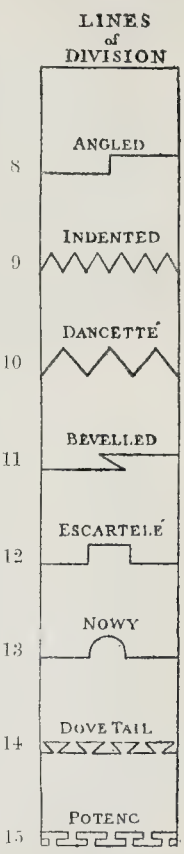
No. 14 is the *Dovetail*, which borrows its name from the wedge-like tail of that bird, and alludes to a close and inseparable union of parts.

No. 15 is the *Potence*, a crutch, on which the lame are obliged to move or swing (from the French), and served to shew that some brave ancestor had lost a limb in the wars and in defence of his country.

*The references to the first seven Lines of Division are to be found in the December number of our journal.

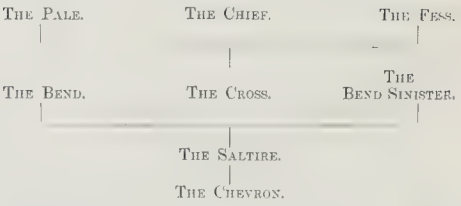
OF THE CHARGES BORNE ON THE SHIELD.

We have so far, we hope, given a clear and comprehensive description of the manner in which different arms may have been anciently produced by the mere divisions of the shield, modified and characterised through a variety of lines, which are still for the greater part commonly used amongst heralds. The next subject which calls for our notice is that of particular bearings, the principal of which, from the frequent occurrence in hereditary shields, have obtained the name of ordinaries; but, as armourists do not always agree in the classification and nomenclature, some dividing them into *honourable ordinaries, subordinate ordinaries*, and common charges, while others class them indiscriminately under one general denomination, and since a systematical order must be considered as the best mode of assisting the memory, we shall concisely explain them under the following analytical arrangement.



ORDINARIES.

Under this distinctive title we comprehend eight of the principal charges, known in heraldic blazonry by the names of—



The ancient warrior would at first, no doubt, have a plain shield to use for the defence of his person in battle, but when conspicuous marks became necessary to distinguish the several branches of his family, the eldest son would naturally adopt the particular tincture or colour of his father's shield, and, in order to emphasise the distinction and produce the required difference between his own shield and his sire's, would probably add a bend, either perpendicular, horizontal, or diagonal, to the paternal bearing, and would thence adopt the Pale, as shown on shield No. 1. The second son, also wishing to differ his coat armour from those of his father and elder brother, simply inverted the paternal pale and adopted the Fess, as Figure 2. A

third son, or, perhaps, the chief or head of another branch of the same family, uniting in his pedigree the double descent of the first and second sons, and wishing to preserve in an ostensible manner the proofs of his connection with the elder branch of the family by adopting their bearings, would place the Pale and the Fess together and thus produce the Cross, No. 3.

The next proceeding was to decorate the shield with a dexter diagonal ribbon, as shown on the shield marked No. 4, which they called a Bend, passing as a scarf of honourable order from one side to the other. The inverting of the position of the last bearing gave birth to the Bend Sinister, which may be so styled in the double acceptation of the word, since it has been commonly looked upon as a sinister mark, or sign of illegitimacy. See No. 5.

The Saltire, Figure No. 6, had its origin in the combination of the bends crossing each other, and the lower half of this ordinary gave rise to the use of the Chevron. See No. 6.

The Chief we have placed last, as being produced by simply placing the FESS at the summit of the shield, as on No. 7.*

THE PALE.—This ancient and honourable bearing is a double partition of the shield, by two parallel perpendicular lines, equi-distant from each other, drawn from the summit to the base, the space between them being filled in with a colour or metal in contradistinction to the metal or colour of the field. The origin of this simple ordinary is attributed to various causes. It is said that the town of Beauvais, in Picardy, France, adopted the Pale for their arms in allusion to the faithful and invariable attachment the citizens of that fortified place had shown to their king during the wars with England. Some trace its name from a part of the ancient *pallium*, or cloak, worn by the Archbishops of Greece and Asia. Heraldry is so closely allied to chivalry that we invariably class the one with the other, and are apt to search for the origin of the one in the other. A ribbon or a scarf laid on the shield by the hands of a celebrated chieftain on the field of battle, or of a beloved lady at a tournament, was often taken and represented on the shield as a bearing, and thus became an honourable distinction for the warrior whose military renown or chivalrous exploits had not before been sufficiently signalised to allow him a difference in the field of his buckler.

The Pale ought to cover the third part of the field, if plain, but when the field is ensigned with charges, which rarely exceed three in number, it is then made a little wider. It ought also to be shaded, so as to appear laid on. The light to come from the left when standing opposite it. See the shield numbered 8, *Gules, a Pale Or*. See also No. 9, *Per Pale Indented, Argent* and *Azure, a Pale counterchanged*. It is easy to see by the strength of the general rule, applicable to all cases, that colour must not be laid upon colour; the centre half of the Pale becomes Azure, and the sinister half Argent, in contraposition with the metal and colour of the field, as we have before observed.

*On account of want of space the shields spoken of above will appear in our February issue.

ALPHABET OF HERALDRY.

(Continued from page 116.)

CABOSHED, this is said of the head of beasts, borne without any part of the neck being shown, and full faced.

CANNETS, ducks, represented without any beak or feet.

CANTON, the French word for corner; it is a square figure placed at one of the upper angles of the shield.

CHAPE or CHAPPE, is said of a field that has a cope of another tincture spreading from a point in the middle of the chief of the two base angles of the shield.

CHAPEAU, an ancient cap of dignity formerly worn by the nobility, and made of crimson velvet and lined with fur.

CHARGE, the figure or bearings contained in an escutcheon; many charges in one field are not accounted so honourable as a few.

CHARGED, shields or ordinaries carrying some figures, are said to be charged therewith.

CHAUSSE, is the name of a section in base of shield.

CHECKY or CHEQUE, one small square of two different tinctures, spread over a field or ordinary. This is always composed of metal and colour, and is accounted by some as the most noble and ancient figure borne in coats of arms by persons who have distinguished themselves in war, for it represents a chess board, which is generally compared to a field of battle, the pawns and other pieces placed on opposite sides representing the soldiers of two armies, which move, attack, advance, or retire, according to the will of the two players, who may be considered as the generals.

CHEVELEE, denotes streaming, as a stream of light from a comet.

CHEVRON, one of the honourable ordinaries.

CHEVRONEL, a diminutive of the Chevron; when there is more than one chevron, they are called chevronels.

CHIEF, one of the honourable ordinaries.

CIVIC CROWNS. These are considered more honourable than any others, although compossed of oak or laurel boughs only.

CLECHEE, is said of a cross, spreading out towards the extremity, and ends with an angle in the middle of the extremity by lines from the low outside points.

COCKATRICE, a winged heraldic monster, with the head, comb, and feet, of a cock, and the tail of a dragon.

COGNISANCE, a term which some persons confound with crest, supposing them to be synonymous terms; but this is an error, for crests were only worn formerly by heroes of great renown, but cognisances were badges which subordinate officers, and even common soldiers, bore on their shields as distinctive marks.

COMPONE, a border, pale, bend, or other ordinary, made up of squares of alternate metal and colours.

CONTOURNE, denotes any figure with its head turned towards the sinister side of the escutcheon.

COTISE, is one of the diminutives of the bend; it is seldom borne but in couple with a bend or fess between them.

COUCHANT, the posture of an animal that is laying on its belly, with the head lifted or erect.

COUNTER, signifies either contrarywise or opposition of any metal with a colour.

COUNTER-CHARGED, denotes the intermixing or opposition of any metal with a colour.

COUNTER-FLORY, a tressure in which the fleurs-de-lis are opposite each other.

COUNTER-PASSANT, two animals passing each other in opposite directions.

COUNTER-SALIENT, two animals leaping different ways from each other.

COUNTER-VAIR, denotes that the little bells of which vair is composed, are ranged base against base.

(To be continued.)

ART NOTES.

Professor Richmond, in an address delivered at Devizes before the students of the School of Art in that town, gave some most valuable advice to his audience. We have thought it worth while to cull a few of the most useful of his recommendations, specially applicable to the readers of this *Journal*. "It has been a common modern fallacy to suppose that because a man can do one thing, therefore he can do nothing else. It does not at all follow that because a man is an admirable painter that he shall not be able to make and model a mass of iron to serve a beautiful purpose as a gate. All this disparagement of art has tended to its decay. The blacksmith, or the carver of capitals for churches, may be as great an artist, if he chooses, as the most dignified painter who ever adorned the walls of a church, but his being an artist depends upon two things—his absolute sincerity of workmanship and his absolute sincerity of design. There must be no work scamped; no design made without a reason for its fulfilment. Albert Dürer, while he was designing the most beautiful imagery of the life and death of our Saviour, was at the same time making designs in other branches of art. Holbein, when he was employed by Henry VIII. in painting the portraits of his wives, was likewise employed in designing of a different nature. Do not think, because any of you may be following what is considered a lower branch of art, that, therefore, you are not holding the dignity of artists. What your dignity as an artist depends upon is simply this: That you do your work as well as you possibly can, and that you have a reason for all that you do."

"What we want to get back into England is that individual axiom of each human being's mind, leaving a trace upon the building that he touches. And this is only done by an infinite love of his art, and that is only got by industry."

"It is so in the whole conduct of our lives; there is no pleasure got out of anything except by struggling. He who puts down his pencil at the first effort can neither be considered to be a good man nor an artist; he who succeeds is the man who through all difficulties breaks down, with the weight of his perseverance, every strong barrier that evil or good fortune may set up before him, and he is the man who will and may become as great as any of the old artists of Italy."

Speaking of the value to the student of drawing the human figure, and the comparative value of drawing from casts, he says: "I would advise with all my heart that you draw from Nature on every possible occasion; draw your friends under any influence; draw them when they are not looking, and draw them with some definite expression. Use your memory, above all, to do that; do not think that it is necessary always to have a thing stuck up in front of you; but try to get the impression of it in your mind, and you will find, as time goes on, that your memory will have acquired such precision that you will be able to compare that which you have been doing from memory, and without the copy before you."

A very interesting Exhibition was held in Manchester last month, under the auspices of the Manchester Photographic Society. Photography enters so largely into so many of the methods of reproduction of drawings and works of art, that its importance can hardly be overstated. The progress made in the mechanical portion of the process, during the last year or two, is really astonishing.

Among the most interesting of the exhibits were the instantaneous photographs of Hill and Saunders (Aldershot, and London). As a rule, the generality of landscape photography suffers from a want of artistic selection; some views exhibited by Lt. Darwin, R.E., were conspicuous for the possession of this qualification—they were, indeed, complete pictures.

The same compliment may be paid to Mr. F. A. Sutcliffe's exhibits, which were few in number, but of excellent quality.

The palm for artistic work, however, must be awarded to Mr. Adam Diston, for four pictures (we can term them nothing else), entitled, "The Student," "The Smithy," "Desolate," and "Winter." These exhibits ranked high as works of art, and were alone sufficient to redeem photograhy from the reproaches we have heard levelled against it.

The Decorative Art Exhibition has changed its pseudonym, and assumed the more pretentious title of "The European Galleries." Decorative Art is now very subsidiary, to what, for distinction's sake, we term Fine Art. We much regret that such is the case, as the programme with which the promoters originally started out, appeared to us to supply a want long felt, and much needed.

OUR PRIZE SCHEME COMPETITION.

The response to our offers of Prizes, has been very good, names of competitors having been received from all parts of the country, and even from America. In order to give the opportunity to any who may not yet have finally made up their minds, it has been suggested to us that we extend the date for receiving applications, which we are quite willing to do, and fix January the 10th, 1882, as the latest date on which we can receive the names of applicants for space. Particulars of prizes, and conditions of competition will be found in the October number for 1881.

OUR ILLUSTRATIONS.



OUR illustrations for the present month consist of a double-page design for a dining-room door (printed in gold and colours, in the best style of chromo-lithography), including two arrangements for the bottom panels, and a second vase in which the detail and fruit are varied. Our second plate consists of two figures representing Architecture and Painting, being part of a series of eight on the frieze of drawing-room at Morr-anned, Rhyl. This example of coloured decoration is a very useful and effective style for door panels, but requires very careful handling and good pencil work in the outlining and etching. The choice of the colour for working upon, will, of course, depend upon the colour of the walls of any particular room in which it may be done, but in using gold for the body of the ornament, and outlining it with black or any dark colour, we may get a good effect on any coloured ground, through all the range of tints or positive colours from black to white, as gold will harmonise with any colour. But while this is true with the combination of gold and colour, yet except there be good taste and judgment exercised in the choice of colour (apart from white and black), we may very easily fall into a vulgar display of the precious metal, and make the work look as if it were done merely to make a display of the gold without regard to the workmanship. The greatest value of the work of the sculptor, the jeweller, or the painter, is not in the material he uses, but in the artistic skill he exhibits upon them. So it should be with the decorator, and so we see, even in the present instance, that the value of the gold is as nothing to the value of the labour involved.

In working this design we should cut a stencil of the ornament in the mass, that is, without any

detail, so as to stencil in the gold size, filling up any ties that may be in the stencil. The gold size should be used very sparingly, and when it is gilt, we should coat it over with weak size. This would protect the gold in working, and enable us to wipe off any accidental mistakes. We should have a complete drawing of the design, with all the details of the ornament. This we should prick, and make use of as a guide for outlining and filling in the detail of the fruit, &c. The beards of the wheat or barley may be put in, either in gold, or with the outline colour. The vase of fruit on the small panel must be placed on the opposite top panel, the ornament on both being the same, with the exception of the vase of fruit. The two bottom panels may be alike. The ground colour of panel is made of yellow ochre, Indian red, green, and black, the yellow and white being the principal ingredients, the others being added until the required shade or tone is produced. The effect, on the whole, is pleasing and good.

The figures on the second sheet may be worked on a gold ground. The method of working is as follows. The medallions are painted in white, the gold size being then stencilled in and gilt, leaving the figure white on a gold ground. The tints of colour on flesh, and draperies, may then be washed in with thin washes of turps and colour, and outlined with brown, no attempt of shading being made except with the lines as shown. The washes of colour should have a little white wax melted, and mixed with them, as the wax enables the washes to be laid and spread more evenly, as well as helping to fix or fasten them.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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CHAPTER XIV.—SILVER WOOD.

SILVER WOOD is a species of foreign beech or sycamore. It is full of a bright silvery mottle, and reflected lights; hence its name. The mottle runs across the line of growth, and is a fine, long, straight mottle, somewhat similar to that we see on the back of a fiddle, and has a very fine overgrain, and pores of the same character as baywood. In colour, it is of a bluish grey with a slight brown tinge, and is very useful as an inlay, or as the body of a panel, inlaid with purple wood or ebony.

In graining it we use a pure white ground, and graining colours made of drop black and indigo. We damp the work down, as usual, and put a wash of the graining colour on the panel, then mottle with a fine ripply mottle, leaving here and there plain spaces. When this is dry we wet it again with a soft mottler; and with a fine cutter or mottler, cut out some fine clean bright lights in the centre of the light part of the previous mottle. If this is properly done it will have the effect of the silvery reflection that is seen in the real wood. When dry, overgrain with the pencil and pencil overgrainer, using a colour made with burnt sienna and a little Vandyke brown, and stipple with the badger, while the overgrain is wet. This must be very faint.

We have now spoken of all the woods suitable for using for doors, &c., with the exception of birch and teak, but there are several other woods suitable for using as inlays, which may be briefly noticed here.

AMBOYNA.

We have no certain record of the genus to which this wood belongs, but it is said to be obtained from the *Pterospermum Indicum*. It derives its name from Amboyna, one of the Spice Islands, from whence it is brought to Europe. Its colour is somewhat of a foxy-red, it is full of very small knots, and may be grained on the same system as pollard oak (vol. i, p. 70), using Vandyke brown and burnt sienna as a graining colour, on a ground made with venetian red and yellow ochre, with white; overgraining with the brown alone, and glazing with burnt sienna and a little Vandyke brown.

NEW ZEALAND YEW.

This is another wood of the same nature as Amboyna; in fact, we should think that the latter was a specimen of yew also, but not as high in colour. It may be grained in exactly the same way as Amboyna, using Vandyke brown as graining colour, on a light oak ground, and glazing with the same colour.

TULIP WOOD.

Tulip Wood is another useful wood for inlaying, and is grained on a light mahogany ground, by using burnt sienna and Victoria lake. The grain runs in stripes, and it is sometimes called "Zebra Wood." We wash over the panel with burnt sienna very lightly, and, while it is wet, overgrain it in stripes, using Victoria lake and burnt sienna, soften in the same direction as the stripes, and stipple while wet.

PURPLE WOOD.

This is used as an inlay only, and, as its name indicates, is of a dark rich purple colour, with very little grain perceptible. It may be grained of a dark red ground (India red), using Victoria lake and drop black as graining colour; a little Vandyke brown may also be used in parts.

RUSSIAN MAPLE.

This wood differs from the ordinary bird's-eye maple only in its mottlings. The knots or eyes, instead of being soft and silky, are simply dark marks, differing in size from small specks to knots three-quarters of an inch long. This wood may be imitated in exactly the same manner as the bird's-eye maple, the knots being put in with the pencil and Vandyke brown.

BIRD'S EYE OAK.

This wood is only fit for use in small quantities. It is filled with a species of knot similar to the

bird's-eye knot in maple, and is called Bird's-eye Oak in consequence. It may be imitated by putting in the eyes in distemper first, then brush over the light oak graining colour, and comb it, giving the grain a slight wavy form in and about the knots.

Teak.

This wood is familiar to all who travel in railway carriages, as many of them are built of it. It may be imitated in the same manner as pitch pine, but darker in colour.

Hare Wood.

Hare Wood is, we are of opinion, simply another name for Silver Wood, and may be imitated with the same colours, and in exactly the same manner.

Birch.

Birch is much used for ordinary bed-room furniture, both in the real wood, and from imitation. It has a large open mottle, with a fine overgrain, and may be grained off a ground the same as the light oak. In working, we use Vandyke brown, with a little burnt sienna, for the graining colour; we lay in the graining colour a little darker at the sides than in the middle, and mottle with a broad firm mottler. Cutting away the colour in a slanting direction towards the centre, we then soften it with the badger hair softener. The mottle is not broken like maple. When dry, overgrain with Vandyke brown.

INLAYING.

Having described the various processes and methods of graining in imitation of the most useful woods for general use, we now proceed to describe the best methods of imitating inlaid woods.

The inlaying of one wood into another, in geometrical or other patterns, is a very ancient practice. Various coloured woods are used for this purpose, and very beautiful effects are thus produced. The art has been practiced in all ages by savage and civilised nations, and is termed marquetry and parquetry respectively. The former name is applied to all the inlaid work on tables, chairs, cabinets, and other furniture; the latter only applies to the inlaying of floors, in oak or other woods.

Marquetry is a kind of Mosaic, executed in hard and curiously grained or artificially stained woods, arranged in an infinite variety of patterns. The outlines are sometimes defined by lines of ebony, copper, brass, ivory, &c.; or the incised ornament is filled in with metal, produced by stamping and cutting them to their proper shapes and sizes. There is also a description of inlaid woods, &c., called Torsia, Torsiatura, a mosaic woodwork much practised in Italy in the fifteenth century, in which architectural scenes, landscapes, birds, fruit, and flowers, are pictured by inlaying pieces of wood of various colours and shades, into panels of walnut wood. It was first done in black and white only, but afterwards other naturally coloured woods were adopted, and when these failed to give the required tints they were stained the colour wanted; thus boxwood was stained yellow with saffron, while various tints of brown were produced by singeing or charring the surface with hot irons, or staining with dyes. This kind of work was frequently employed in decorating the altars of churches, door panels, chairs, wainscoting, &c.

The art of inlaying had fallen into disuse in England, until the Exhibition of 1851 gave an impetus to its practice, which has been so far sustained. The manufacture of both parquetry and marquetry has become a most important business.

Another kind of inlaid work is called Buhl work, so named after the inventor, André Charles Boule, and was extensively patronised by Louis XIV. The foundation and structural features are wood, which is pierced and inlaid with tortoise-shell, enamels of different colours, silver plates, and ormolu, producing on the whole a most sumptuous effect. It was applied to tables, desks, workboxes, cabinets, and the ornamental requisites of the toilet, its rich and gorgeous effect exactly suiting the magnificence indulged in by the court at Versailles. Sometimes the tortoise-shell formed the ground, and metal and enamel the ornament. This costly style continued in vogue in France until the Revolution. Its inventor died in 1732, at the age of 90. He held the official position of Tapissier en Litre du Roi, and after his death his manufactory was carried on by his family.

A patent was taken out some years ago for a method of ornamenting wood by burning the pattern upon it with red hot irons. This was an adaptation of an old process, but in this case the pattern on the wood was simply a *fac simile* of the pattern of the iron, which appeared on the wood in a rich brown colour. Birds, landscapes, border patterns, &c., were thus produced in brown, on white pine, box, or other white wood. There was, however, an indistinctness or want of sharpness of outline, which was one reason why it did not obtain success.

We notice that a patent has been taken out in the course of last year for a very ingenious method of inlaying one wood into another. In this process veneers are glued on to the surface of the wood to be inlayed and allowed to dry; it is then subjected to the influence of steam for a considerable time, until it becomes softened to some extent. The pattern to be inlaid is formed or cut out in zinc; this is placed upon the veneer and subjected to great pressure between iron plates, this pressure forcing the zinc and the veneer into the wood, and also forces up the wood through the interstices of the pattern to the exact thickness of the zinc. It is then dried and planed down to the level of the sunk veneer, and the pattern is as sharp and clean cut as if it were the best hand work.

It will be evident from the description given above of the various methods of inlaying woods and metals that, however it is done, it is a subject requiring in its practice a very large amount of artistic taste and skill both in design and execution, and although, as regards the manipulation in cutting and shaping of both metal, wood, and marble, many and great improvements have been made in these latter days, more especially in parquetry for flooring, and veneer cutting, which has all tended to reduce the cost very materially, still these works, if specially

designed and executed by hand, must of necessity be very costly. Our principal object in describing them here is, first to show the kind of work to be done, and then to describe how the same may be imitated so as to produce works of decorative art beautiful in themselves and at a moderate cost. In pursuance of this object, we purpose to first describe the various methods of imitating inlaid woods on painted work, then to treat of staining and inlaying upon white pine, pitch pine, and any other white woods. The imitation of inlaid woods has been practised by first-class grainers on painted grounds ever since graining became one of the useful arts. Many improvements have, of course, been made, both in the manner and method of its execution. Of these manipulative processes, we shall only describe those which from practical experience we have found to be the simplest and the best.

Our first and most indispensable requisite for inlaying is a good and appropriate design, one that would be suitable for executing in the real wood, for it will be evident that although we have a wide range of ornamental forms which are suitable for this purpose, yet there are many designs which are totally unsuitable. Flat ornament, *i.e.*, without relief or shading, is the best in every respect for the purpose, although, of course, ornament shaded, so as to appear in slight relief, is admirable for certain decorations, and some notable works have been executed in this style, such as representations of natural objects, birds, fruits, flowers, leaves, musical instruments, masks, &c.; but these may all be considered as exceptional works—necessarily of a high class—requiring artistic skill of a high order, and, although coming within the range and province of the decorator's art, only to be used for special purposes.

(To be continued.)

MEASURING-UP AND PRICING PAINTING WORK.

(ALL RIGHTS RESERVED.)

CHAPTER I.

IT is somewhat difficult, in writing on the subject we are now about to discuss, to lay down any inflexible rule; local custom and conditions so modify and regulate the contractor in forming his estimate, that all we can hope to do is to fix upon some kind of general principles which may be adapted to the exigencies of particular cases. Probably in no other department of the building trade are the conditions or bases for estimating of so fluctuating and uncertain a character as in house painting, and we may certainly add, without fear of contradiction, that in no other branch are the facilities for dishonest practices so ready to hand.

"The means whereby to do ill deeds,
Make ill deeds done."

And the readiness with which some masters take work at prices notoriously below a minimum figure, is only as astonishing as the fact that they make the work yield a profit when it is done.

The old system of working, and afterwards measuring up, on a previously fixed schedule, is falling into disuse more and more each year (though it is, perhaps, the fairest method we could have), and is mainly confined to government and corporation work, and in these days of high-pressure and competition, day-work jobs are becoming very like angels' visits—few and far between.

In estimating for work to be done, one of two methods can be adopted—the first, the more accurate and scientific one of carefully measuring up and pricing each detail, the other what we may term the "rule of thumb" plan, which consists in walking through the building and jotting down a lump sum for each room. This latter plan is a rough and ready way, and can only be resorted to when the individual estimating has had considerable experience, and is not to be relied on when it is a case of fine cutting. New work is, as a matter of course, much easier to estimate for than old, inasmuch as the preparatory processes, which are of necessity associated with old work, are there absent, and if the structural parts—iron, wood, and plaster—be finished in anything like a good manner, it is tolerably plain sailing to arrive at something near an approximate estimate. It is when we come to estimate old work that we have to confront the uncertain quantity. It costs very little, for instance, to actually paint a door, or to speak more correctly, to give the door a coat of paint, but it may be a very costly process to rub down, stop, and prepare that same door. And here, whether estimating on the lump principle or on that of measurement, the contractor has to fall back on his experience to enable him to fairly approximate the probable cost. It is, however, a somewhat difficult matter to estimate for new work from builders' and architects' quantities, except a fair margin be allowed for contingencies, as, if work be contracted for on a narrow margin of profit, some one or other is sure to burn their fingers.

Solicitude for business is both desirable, and esssential to success, but when it takes that form of over-eagerness which is displayed in tenders week by week, exhibiting disparities startling in their amounts, the results are not unfrequently both disastrous and deplorable; and when—as is at times the case—the tenders are sent in, and the work undertaken at low prices, to prevent rival firms obtaining the job, the process very much resembles that of cutting off your nose to spite your face. Many a man has had bitterly to rue contracts entered into in the most perfect faith and with high hopes, but which, in their outcome, owing to the arising of unforeseen difficulties, vexatious delays attendant upon other trades, &c., &c., have been the grave of his capital and the sepulchre of all his prospects.

The excessive competition and paring down of prices, familiar to all engaged in the house painting or building trades, has been, and is, destructive of

that excellence of workmanship which English workmen once could boast of, and that not without reason, as the excellence of their work testifies to. We do not wish to draw too pessimistic a picture, but we do desire to point out most emphatically that the whole tendency of this whittling process has been, not merely to lower prices to starvation figures, but, what is much more serious in its consequences, it has introduced a slipshod slovenly style of doing work, which, in its operation, is demoralising alike to employer and employed. Resort has had to be made to such economic expedients as sizing over dirty work, instead of cleaning and properly preparing it, substituting a coat of size and barytes in lieu of lead paint, and other equally undesirable substitutes for good work, all as the legitimate fruit of this system, and the sooner we recognise and face the evil the better for all concerned.

"A fair day's pay for a fair day's labour" is the motto inscribed on the banners of many of our trade organisations. The saying is but a reiteration of the old doctrine "The labourer is worthy of his hire," and we would nail our colours to the mast any day on such a platform. Good work is worthy of good pay, and the reason it so frequently fails to get it is, that the worker himself does not sufficiently assert his claims to be fairly remunerated. We are certain that it is the only abiding basis on which a good business can be built up, and the only one which gives real and solid satisfaction to the master himself.

In our next we shall devote ourselves to explaining the actual methods of measuring painting work, and at the conclusion of these chapters shall append a list of prices of various kinds of work, which the Trade will find useful as a standard of prices.

(To be continued.)

TRADE INTELLIGENCE.

We recently had the pleasure of inspecting the new premises of Messrs. Crowden and Garrod, built in the hybrid renaissance style which seems very popular just at present with our London architects, at the junction of Southwark Street and Southwark Bridge Road, and they form a handsome pile of buildings, which certainly improve the neighbourhood where they are placed. Messrs. Crowden are now in their new premises, and are prepared to give to orders the same prompt attention which have distinguished them in the past, aided by the increased facilities and convenience which the new premises give them.

Mr. James Toleman has a very excellent collection of paper-hangings for the coming season. Some single print machine goods are, we were about to say, too good for the price, but they certainly are extremely cheap and good, in fact, the excellence of the machine goods in their colouring and general appearance, are hardly surpassed by the block goods, excepting in the qualities in which block goods always do excel machine work. Amongst the better quality of goods in Mr. Toleman's patterns, are to be found some very quiet tasteful papers, which cannot fail to recommend themselves.

White Lead has again taken an upward tendency, and is likely to continue to move in that direction, so that intending buyers should complete their contracts at as early a date as possible. It is now standing at £24 10s. per ton. Linseed oils are low, 27s., and turpentine remains at a medium price, 43s. The remarkable feature of the year is the low price reached by lead, £22 10s., and the long time it remained at that figure.

A correspondent of *The Builder*, under the heading "The Nomenclature of Colours," draws attention to the great discrepancies in colours or stainers, nominally the same, and he recites his experiences, which are not solitary, nor confined to himself. We have again and again pointed out to our readers these discrepancies, and the misleading character of names only. We recently tested two samples of stainers, one at 18s., the other at 45s. per cwt., and after thoroughly testing the staining capacities of each, we decided in favour of the dearer priced article but by far the cheapest goods. The correspondent alluded to above appeals to the Paper Staining Company to take the matter up and fix on some definite standard, which shall be accepted by the Trade. But unless every painter be furnished with duplicates of these, of what benefit would it be. Far better is it to deal with good houses, pay a fair price for your materials, and see that you get it.

ANSWERS TO CORRESPONDENTS.

D. P., Dundee.—A weak solution of caustic soda in water will remove the size from the wall, however long it has been on.

Mr. John R. Eddy.—We have heard of, but not seen, the paper-hanging machine you write about. Should we do so we will notice it in due course. With regard to your postscript, the editor of the *Journal of Decorative Art* wrote the articles you name in the *Building News* eleven years ago under the *nom de plume* of "An Experienced Workman."

An Art Student.—Your suggestion shall have our best consideration. The idea is a good one if properly worked out.

A. F. S., Southport.—Dark-coloured enamel may be made in two ways. Grind the colour to be used very stiff in turpentine; then mix to a working consistency with the best polishing copal varnish, adding a few drops of clear boiled linseed oil. This serves to prevent it cracking. This mixture works well, but requires to be well varnished before being polished. In the second method we grind the colour very stiff in oil, then add Japanners' goldsize, or some other quick, hard drying varnish. This mixture requires a much longer time to dry hard enough for rubbing down than the other, but when it is hard it is very tenacious and firm. Of course it requires well varnishing before polishing. Any of the ordinary dark colours may be used, such as Indian red, burnt umber, dark green, drop black, &c.

Mr. J. E. Barns, Market Drayton.—Many thanks for your kindly letter. As you will, no doubt, have perceived, we have endeavoured in a great measure to carry out your suggestion. When the *Journal of Decorative Art* was first projected we felt that all the journals professing to supply the needs of the hour to painting and decorating trades, were either too high or too low—too high in so far as the examples given were far beyond the capacity and wants of the general class of workmen, and, in fact, requiring a highly skilled artist to adapt and bring the design into working order. Others again were too low, inasmuch as the designs given were far below par, badly drawn, and utterly unsuited to the purpose they were supposed to be used for. The great mistake made by these publications lay in the fact that they were not written nor edited by practical men, but were conducted by men who knew nothing of the trade, and consequently their productions were not only useless, but utterly misleading. Since this we have, in the *Journal of Decorative Art*, striven to avoid the errors, and in every example of ornamental decoration given we have had but one object in view, viz., to supply examples which should be eminently practical, and easy of adaptation by any ordinary skilled decorator or pencil hand, keeping always before us the everyday wants of the trade, and the talent available by the trade generally, and this object we shall keep strictly in view in the future.



W. Sutherland, Invt.

ORIGINAL DESIGN FOR ROOM D



A. A. Sutherland, Delt.

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The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] FEBRUARY. [PRICE 7D.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

THE JOURNAL OF DECORATIVE ART PRIZE SCHEME AND COMPETITION,

AT THE AGRICULTURAL HALL, LONDON,

March 20th, and following days.

WE are pleased at being able to state, that we have a promise of a very good display in connection with the above Exhibition. We draw the attention of competitors to the following remarks:—

We shall forward on the *First* of March to each competitor, printed labels, which they must attach to their goods. All panels must be carefully packed, and should be sent off (from the country) not later than the 15th, so as to arrive in London on the 17th, *carriage paid.* Advice should be sent to the Head Office as to the carriers by whom they are being sent. All competitors residing in London must remove their exhibits before the 3rd of April. Competitive exhibits from the country will be sent off by us immediately after the 1st of the month. Free tickets of admission will be sent to each exhibitor. In our March issue we shall give further details.

CERTIFICATE.

We invite designs for a Certificate, to be given in connection with the above competition, and shall be pleased to pay a premium of ONE GUINEA, for the design sent in most suitable for the purpose. We impose no restrictions on the designer beyond these, that the drawing must be 22 × 14 and drawn in Indian ink on white paper, for the purpose of reproduction by photo-lithography. All designs must be sent in to the Head Office by the 15th of February accompanied by an extra postage stamp for returning in case they are not successful. The full name and address must accompany each design. We append herewith the principal matter which will have to be embodied in the Certificate:—

THE JOURNAL OF DECORATIVE ART PRIZE COMPETITION,

HELD IN THE AGRICULTURAL HALL, LONDON,

March 20th to April 1st, 1882.

CERTIFICATE OF MERIT,

awarded to

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

(ALL RIGHTS RESERVED.)

CHAPTER XV.—DECORATIVE PROCESSES.

IF the design is now satisfactory, it should be folded again to its original form; but in the opposite way to the previous folding, and with the design outside.

The half which has upon it the transfer, should be dusted off clean and placed upon black or other coloured transfer paper. The original half of the design should then be carefully gone over with a lead pencil, and corrected in the outline, using a slight pressure with the point of the pencil. Wherever the pencil has touched, it will cause a corresponding mark to be transferred from the coloured paper underneath, to the blank half of the paper above, and thus we get the ornament in its corrected form, in coloured lines on one half, and in lead lines on the other half. Another method of tracing, so as to get the design in the same coloured lines on clean paper,—faint or strong—as may be required, is to sketch one half of the ornament as before described, on the folded paper. When the design has been corrected, the paper is opened and made into transfer or tracing paper, by being rubbed on the inside with Indian red or other colour, putting it on with a rag or ball of cotton wool. The lines will be strong or faint according to the quantity of colour left on the paper. We now take a clean sheet of paper of the same size as the design, and fold it in two halves as before, then put it inside the one with the design upon it, the doubled edge being against the double edge of the design. We then go over the lines on the corrected half of the design with the tracing point. If this is properly done the whole of the ornament will be transferred on to the clean paper. The clean paper, coming against the coloured, the design will be transferred to both sides of it, and so we get a complete design. By this means we produce an equal-sided design, without the trouble of measurement or re-drawing, and at a considerably less cost in labour than by any other method. For all flat or stencil ornaments, this method very materially facilitates the execution of the work, especially in all designs to which free-hand drawing is applicable. Diapers, and all set or geometrical patterns, require the aid of compass and rule, as a matter of course. Designs for stencil patterns may be placed upon the stencil paper at once by the foregoing methods, thus effecting a great saving of labour and expense.

In putting any "set" or geometrical designs, such as diapers, borders, and other ornaments, which are formed by a repetition of one section, upon the stencil paper, the work will be much facilitated if we cut a section, which comprises the pattern to be repeated. With this we stencil over the space to be cut, having previously set out the whole of

the spaces in squares, circles, or triangles, as the necessities of the pattern require.

Or, instead of using the stencil brush and colour to attain this end, we adopt a method which answers admirably, and is as follows: We fill a pounce bag with the common cake black-lead such as is used for grates—crushed into a fine powder. We lay the stencil down, and dab or dust a little of the black lead upon it. We then take a common tooth-brush and rub the dust over and into the pattern with it, and by thus using a section of a diaper, or border pattern, we get a correct imprint of it on the stencil paper, ready for cutting, and can multiply it to the full extent we require. Now, if we were to use any dry colour in this way, we should most likely curl up parts of the stencil, because of the roughness of the colour, but the black lead has a sort of dry greasy quality which causes the tooth-brush to slip over the most tender parts of the pattern, and so avoids injury to it. But though this is the case, it is as well to work the brush, so as to avoid coming in contact with the sharp points of the stencil, this only requires a little care in working. In cutting these stencil patterns which themselves have been stencilled in sections, as above described, care must be taken to cut the pattern full. Because all stencil patterns print somewhat smaller than the part cut out, consequently when the pattern itself is cut out, and then stencilled upon another paper, to be cut again, it must be cut full, and the difference allowed for. On the other hand if the ground is cut out and the pattern left, we must cut inside the stencilled line. In both cases, if we neglect this point, we shall have a difference in the size of each.

Simplicity in the arrangement of stencil patterns, is very conducive to a successful result. This will be the more evident, if we consider, that the various parts of the stencil, must of necessity, be separated by ties, simply because the pattern cannot be wholly cut away, or its parts would be disconnected, and therefore "ties" or portions of the paper, have to be left, to bind the whole together. In many cases these ties have to be filled up after the pattern is stencilled, which causes much extra labour, not only so but there is scarcely any possibility of doing this, without the piecing shewing, for singular to say, that although the colour with which the work is stencilled and that with which the ties are filled up, are exactly the same, the two surfaces are so different, that the light acts unequally upon them, and they never can be made to look alike.

The rough granular surface left by the dabbing of the end of the stencil brush, may be compared to a stuccoed wall, and that left by the pencil in filling up the ties, to smoothly finished plaster work, and it is this inequality of surface, which reveals the piecing. From this it will be perceived, that it is always best to arrange the design or ornament, so as to leave as few ties as possible, and those which cannot be avoided should be so placed that they will not appear as ties, or show as a want, or defect, in the finished work. With a little care and consideration this can be done. Ties should, when possible, be placed at parts of the ornament which cross each other, so placed they seem to conduct one part over, and the other under, and so appear natural. The junction of stems or stalks with leaves, whether conventional or natural types, are proper places for ties. At the junction where one ornament springs out of another, ties may be placed without being seen as ties, and the ornament may be so designed, that the "ties" will appear as part and parcel of the ornament itself. Nothing looks so bad, so unskilful, and so unworkmanlike, as ties when they are placed in positions where there is no necessity for them, they give a common and unfinished appearance to the work, and show great poverty of resource in design. Now the more this fact is concealed, the better the appearance of the finished work, and the greater the pleasure derived from it. We may here note that we prefer when practicable, to stencil in the back-ground of the ornament, as we thus make it appear as part of the wall, the general colour of the wall forming in this case the pattern, and by painting in first, a band of colour for a border, or a frieze round the room of the colour we wish the ornament to appear, we can then stencil in any darker coloured back-ground, leaving the ornament the light colours. This plan may be varied in an infinite number of ways, and the effect and finish, is much superior, to the same pattern cut out and stencilled in colours. The two may be combined however with good effect, and part done one way and part the other with the same stencil, or with two or three different stencils. Bands of a different colour to the dado and wall space, may be painted upon a staircase wall, between the dark colour of the dado, and the light colour of the wall above; on this band a pattern may be stencilled, in which the back-ground of the ornament is cut away, leaving the ornament the colour of the painted band: underneath this, a dot or anything else may be stencilled upon the darker colour of the dado, the pattern in this case being cut out. Above the band on the light colour of the upper part of the wall, a light cresting or ornament—also cut out—may be stencilled. By adopting this plan we unite the whole together, the pattern on the dado and that on the wall, modifies the stiff effect of the band, and serves to break and blend the one into the other, while at the same time each is distinctly seen.

The three parts or patterns, may form part of one stencil, or be separate, and the workmen may stencil in two or three different colours with it. It is a law of colour, that when two or more colours impinge upon one another, they are best developed, by being separated by lines of white. We fulfil this condition in a great measure by stencilling in coloured back-grounds, as we must by the very nature of the process divide the various colours by lines of patterns of lighter tints than the back-ground we stencil in.

(To be continued.)

BUILDING EXHIBITION.—We have been requested by Mr. John Black, the Secretary of the Building Exhibition which will be held in the Agricultural Hall in March next, to state that he will be pleased to forward to Architects, Surveyors, and Clerks of Works, on receipt of card addressed to 161, Strand, free admission tickets to the Exhibition, which promises this year to be a collection of exceptional interest.



W. Sutherland, Invt. A. A. Sutherland, Delt.

BORDERS FOR DADOS, WINDOW LININGS, ETC., ETC.

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OWEN JONES & HIS CONTEMPORARIES.

Augustus Northmore Welby Pugin.

THE amount of work which Pugin personally got through is almost incredible; always working beyond the measure of his strength, he precipitated the catastrophe which eventuated in his death. Writing to Mr. J. Minton in 1852, he said, "The doctor says I have lived a hundred years in forty;" a terrible comment on what he had done. He had literally, and actually, consumed his life away; by untiring application to his art. His work lies scattered all over the country, and is mainly confined to ecclesiastical buildings for the Catholic Church, his principal private work being for the Earl of Shrewsbury, who for many years, to the end of his life, remained a close friend to him. In addition to his own private practice, Pugin was largely consulted by some of the most eminent architects of his day; his greatest work in this direction being the assistance he gave Sir Chas. Barry in working out the details of the new Houses of Parliament, and it does honour to the memory of both these great men, to see the complete confidence they each had in the other's abilities and powers. Pugin had a keen sense of satire; on one occasion being asked by a Roman Catholic prelate to furnish designs for a new church, which must be very large, very handsome, and very cheap, as they were very poor, and had only so much money to spend; Pugin wrote in reply, "My dear Lord, say *thirty shillings* more, and have *a tower and spire* at once."

He was very punctilious in exacting ceremonious and respectful treatment from others, though he did not always give it himself, it is told of him, that on one occasion, Lord R——— paid him a visit, in his new house which he had then just built, near Salisbury; the house was incomplete, with the exception of the room which Pugin used as a study; on entering, Lord R——— omitted to remove his hat and at once entered into a conversation, which only evoked a look of astonishment from Pugin, who immediately rang the bell, and ordered his own hat to be brought, placing it on his head, he said, "Now my Lord, I am ready." The independence of mind, and manliness of conduct, which he exhibited all through his short life, are not the least of the many admirable points he possessed. We find him writing to Lord Shrewsbury, about the plans for a new Dining Room at Alton Towers, in a manner which while perfectly respectful, is refreshing in its vigorous independence. He says, "If I am not enabled to exercise any judgment, and make use of my knowledge and experience, I am reduced to the position of a mere drawing clerk, to work out what I am ordered, and this I cannot bear, and, so far from knocking under, I really must decline undertaking the alterations, unless your Lordship will consent to its being made worthy of your dignity and residence. It shall never be said, that I have spoilt the dining room at Alton. I would not do it for a thousand pounds . . . . I will not sell myself to do a wretched thing." Very few men would have had the moral courage to adopt so independent a tone to such an illustrious client.

Pugin's eccentricity was as remarkable as his independence. Staying at the house of a well known nobleman, his Lordship who was a man of very simple habits, remarked, in the course of a conversation—that he would, personally, as soon live in a small cottage, as in his own large and magnificent mansion. Upon this, Pugin, jumped up, paced the room in an excited manner, exclaiming "The d——l you would! The d——l you would, my Lord! Then what is to become of me, and all other artists." With all this, no man was more destitute of personal egotism, or personal ambition, (as it is understood in the ordinary sense). He was dogmatic to a degree, but it was not the dogmatism of personal vanity, it was but the fervid utterance of the man's belief, and, if later and more extended experience, showed, as it did, in more than one instance, that the position he had taken up, was untenable; the admission came from him, with a frankness, as complete, as the assertion had been positive. We never find him acting with a view to attain notoriety, or his own immediate ends. Whatever he undertook, he threw all his soul and energies into it, regardless of the labour or trouble involved, or of pecuniary results. The great misfortune of his career, was the warped bias, which his mind received, and cherished, against all Art, outside the Church of his adoption, often leading him into declarations, and positions, from which he had afterwards to withdraw, and necessarily narrowing down his sphere of usefulness, within very arbitrary limits. In 1841 Pugin began to build, at his own expense, a house and church at Ramsgate, on ground he had previously bought for that purpose. He entered into this work with a devotion almost without a parallel, executing portions of the paintings, glass work, and vestments with his own hands, and joining in the religious services most devoutly. In 1844 he lost his second wife, and buried her at St. Chad's, Birmingham. Through all this time his love for the sea continued strong within him, and he often varied his ordinary work by short trips seaward in his own boat, apparently taking a delight in combating the strength and force of the waves.

Pugin was appointed a Commissioner of the Great Exhibition of 1851 and in conjunction with Mr. J. G. Crace carried out the decoration of the mediæval Court. A singular feature of Pugin's career was the close confidence, which he gave to Mr. Myers the builder. Pugin first met Myers at Beverley, when he was making some drawings of the Minster. Myers who was then working there, put Pugin up a scaffold to enable him the better to complete his work. Some time afterwards, hearing that Pugin was about to build a church at Derby, he tendered for it, was accepted, and ever afterwards was employed (almost exclusively) by Pugin to do his work. He built for him no less than thirty-six churches, and a remarkable coincidence lies in the fact, that the last drawing Pugin made, was for Myers' use, and for Beverley Minster. It was on the night preceding his mental breakdown.

*

Myers was with him endeavouring, to distract attention from himself, by reproaching him, with delaying the work at Beverley for want of drawings. Asking for a pencil he took up an envelope and on the back of it sketched the vane which now ornaments that structure.

Not content with his professional and art work, he joined in the effort which was made in 1851 to establish a Roman Catholic Hierarchy in England, by issuing his "Earnest Appeal," a document which reflects the highest possible credit on his simple and honourable adherence to the faith which he held, but the response which it met with proved to him a severe disappointment. This is not to be wondered at, as the spirit of self-sacrifice which breathed through every line of it, was outside the comprehension of the bulk of mankind. It might have emanated, from an ardent "voluntarist" instead of coming from a devoted disciple of a church whose foundation principle, is the indissoluble union of the ecclesiastical and temporal function, but here, as in all we find him doing, he is thoroughly honest and outspoken, regarding neither the opposition of foes, or the coldness of friends. He was denounced by those, who, if they could not rise to the same high level of devotion to his ideal church which he reached, ought at all events to have recognised the utterly unselfish spirit of the man.

The disappointment mortification and grief which followed, coupled with the strain his mind had been subjected to in his professional pursuits, became too great, and the news burst upon the world that he had been confined in Bethlehem Hospital for a short period; he was now thoroughly broken down, and though he rallied somewhat for a short time, he finally succumbed to a second attack, and died in his own house at Ramsgate, September 14, 1852. Though accounted by the general public as harsh and overbearing in manner, his life and letters reveal a very tender and affectionate spirit under the somewhat ungainly exterior. He was a potent force in the movement which woke the art world from the lethargy and self-complacency in which this century first found it, and no mean share of the credit of the movement which has resulted in a higher and closer acquaintance with the true principles of art, is due to his efforts.

The works he has left behind him, remain a testimony to the untiring industry of the man, and the keen perception of the artist. The following are a list of his chief publications:—"Gothic Furniture: Styles of 15th Century" (1835); "Contrasts: A Parallel between the Noble Edifices of the 14th and 15th Centuries and the Present Day" (1836); "The True Principles of Christian and Pointed Architecture" (1841); "Present State of Ecclesiastical Architecture in England" (1843); "Apology for the Revival of Christian Architecture in England" (1843); "Glossary of Ecclesiastical Ornament and Costume" (1844); "Floriated Ornament" (1849); "Treatise on Chancel Screens and Rood Lofts" (1851).

In our next, we shall take the opportunity of referring to and discussing one or two of the above works.

(To be continued.)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

Chapter XIII.*

No. 10 exhibits a very ancient but not common bearing, viz., *Gules*, a *Fess, Engrailed*, surrounded by a *Pale, Engrailed, Ermine.*

No. 11, *Azure*, a *Saltire, Argent*, surrounded by a *Pale, Gules.* This bearing serves to show that the rule exhibited in Figure 9, although apparently infringed in No. 11, is still in full force, as the Pale does not lie properly on the azure of the field, but on the metal of the silver Saltire; however, were the two ordinaries both of the same tincture, yet it would not be false heraldry, because the major part of the second ordinary lies on the coloured field. Many instances of the apparent deviation from the general principle might be adduced from both ancient and modern grants of arms.

No. 12, *Gules*, on a *Pale, Engrailed, Argent*, a *Pale, Azure.* In this case the Pale ought to be strongly shaded, or else it might be blazoned *Gules*, a *Pale, Azure, Fimbriated, Argent.*

The Pale has two diminutives, which are subordinate bearings, the Pallet and the Endorse. The first is generally half of the Pale. See No. 13, *Azure, two Pallets, Argent;* and *Azure, three Pallets, Wavy, Argent*, as on Figure 14, where the Pallets are not exactly half the Pale, to show that if they were of that proportion they would occupy too great a part of the shield.

No. 15 represents the other diminutive of the Pale, which derives its name from its position respecting the Pale, *ad dorsum posita. Vert*, a *Pale Or between two Endorses, Argent.* Its proportion is one-fourth of the Pale. These subordinates are so narrow that they do not admit of any charge being placed upon them; they may be of any tincture, but are seldom composed of furs, and never of vair.

No. 16, *Party Per Fess, Sable and Argent*, a *Pale, counter-charged.* An ancient custom prevailed not to shade the Pale in this particular bearing.

Next to the diminutives of the Pale come the divisions to which this ordinary gave origin.

No. 17, *Paly of Six, Or and Gules.* This bearing divides the shield into six pieces, alternately metal and colour. The metal ought always to be first, although there are instances of colour taking the lead, as in No. 18, *Paly of Eight, Sable and Argent;* and No. 19, *Paly of Ten, Argent and Vert.*

The division of the shield in this way seldom extends any further.

No. 20, *Paly of Six, Or and Sable, Per Fess, countercharged.*

(To be continued.)

*Reference to the first nine shields on the next page will be found in our January number.

DIVISIONS OF THE SHIELD.

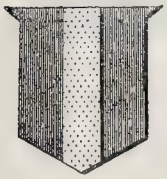


FIG. 1. THE PALE.
Gules, a Pale Or.



FIG. 2.—THE FESS.
Gules, a Fess Or.



FIG. 3.—PALE AND FESS COMBINED, forming the Cross. Ermine, a Cross Gules.



FIG. 4.—THE BEND.
Ermines, a Bend Azure.



FIG. 5.—THE BEND SINISTER.
Or, a Bend Sable



FIG. 6.—THE SALTIRE.
Gules, a Saltire Argent.



FIG. 7.—THE CHEVRON.
Argent, a Chevron Gules.

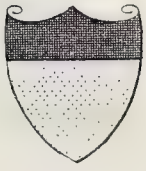


FIG. 8. THE CHIEF.
Or, a Chief Sable.

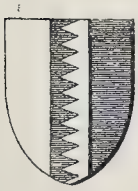


FIG. 9.—Per Pale, indented, Argent, and a Pale Countercharged.



FIG. 10.—Gules, a Fess, engrailed, surmounted by a Pale engrailed Ermine.

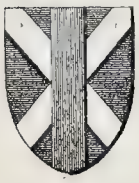


FIG. 11.—Azure, a Saltire, Argent, surrounded by a Pale Gules.

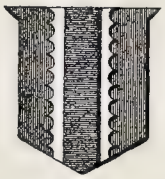


FIG. 12.—Gules, Or a Pale engrailed, Argent, Or a Pale, Azure.



FIG. 13.—THE PALLET.
Azure, two Pallets, Argent.



FIG. 4.—Azure, three Pallets, Wavy, Argent.

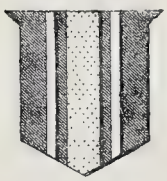


FIG. 15.—Vert, a Pale, Or between two Endorsers, Argent.



FIG. 16.—Paly, per Fess, Sable and Argent, a Pale, countercharged.



FIG. 17.—Paly of Six, Or and Gules.

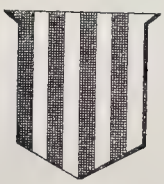


FIG. 18.—Paly of Eight, Sable and Argent.

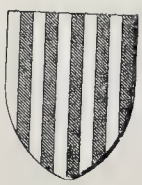


FIG. 19.—Paly of Ten, Argent and Vert.

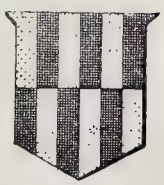


FIG. 20.—Paly of Six, Or and Sable, Per Fess, countercharged.

ON THE MATERIALS AND TOOLS USED BY THE HOUSE PAINTER AND DECORATOR: THEIR PROPERTIES, COMPARATIVE VALUE, AND USE IN THE TRADE.

Brushes and Bristles.

(Continued from page 150.)



N idea prevails amongst painters that whalebone is used as a substitute for bristles, but such is not the case. To cut and prepare whalebone to be as fine as bristles, would bring up the cost to more than the genuine article, it is only used for such brushes as are exceedingly stiff and coarse. From what is said above it will be seen that it is a very difficult matter indeed to detect any adulteration, unless such a large proportion of horse-hair or fibre is used as will destroy the elasticity of the brush. The want of elasticity is a sure test of the genuineness or otherwise of a brush. We now give the chief points to be noticed in the selecting of a good brush. A good painting brush, whether of the round or oval shape, should be made of straight bristles, having an inclination to turn to the centre when viewed endwise.

The extremity of the brush should be soft,—if it is harsh, bend the bristles sharply to test for fibre, as explained before.

The bristles in the brush should feel solid up to near the end of it, though tapering slightly all along its length, and it may be accepted as an infallible test, that if a brush has not a good spring, it is not and will never be a good working brush.

The apparent size or thickness of the brush, is no criterion of its goodness or value, the better the quality of the bristles, and the closer they will be together and the greater the weight in proportion to their bulk. It is a very easy matter to make a brush *look* larger than it really is, and it is always wise to open out the brush with the fingers and see for ourselves whether the core of the brush is equal to the outside.

The handle should not be too thick, nor should the end of it, project beyond the limit of the bound part of the brush, but should be a little below or rather a little shorter, so that the binding may cause the bristles to close over the handle, and be divided towards the centre. If on the other hand the handle projects above, the bristles are separated, and the brush will very likely in working, wear hollow in the centre in form like a swallow's tail, or a forked stick, and thus become useless for good work, before it is half worn out, not only so, but the loss of time, consequent on the extra labour expended in laying off the paint smooth and even, soon makes this kind of brush the most expensive one that can be bought, buying poor brushes, is the most foolish of foolish economy, they are dear at any price. Common brushes are usually made in the manner described above, in order to give them a fuller appearance. Another common trick or practice of those who make these sort of brushes, is to make the handle trumpet-shaped at the large end, so that while there is a large proportion of wood within the brush, that part which is seen appears very small and thin. The inexperienced buyer is thus led to believe that it is all solid bristle.

There have been many improvements made of late years, in the methods of tying and binding the bristles to the handle or stock, we say improvements, but after all, we must bear our testimony to the fact, that a *well made* brush, whether the old string bound brush, copper bound, metal cased or otherwise, with the best bristles will be found useful and serviceable, but if these two conditions are absent no brush will be satisfactory, we have used all kinds and while giving all due praise to many of the new methods of making and binding brushes, we have found that the essential conditions which go to the making of a good paint or varnish brush are the same in whatever way it is bound or put together. Much variety has been introduced into the shape of varnish brushes and many improvements have been made. A varnish brush while not differing in the quality of bristle and the other essentials of a good paint brush, has special work to perform, work which causes a greater strain upon the make and disposition of the bristles, consequently the greatest care is required in making them, the main object being to furnish a brush, which, while being firm in substance of bristle, with a good elastic spring, shall at the same time offer a broad flat and soft surface, to the object to be varnished, thus enabling the workman to spread the varnish, cross and recross, and lay off, and leave it at the last, with a smooth level or equal surface.

Distemper or Stock Brushes.

The best flat brushes for distemper work, require the same care in the making as the paint brush. They should be full in the bristle, light in the stock, not liable to twist, and wear evenly, with these conditions fulfilled we have a good brush, but not otherwise. Many painters prefer a double knot brush for distemper, but we see no reason for the preference. There can be nothing better for its purpose than a well made brush about 18in. long and 8½in. wide, at its broadest part, with 6in. bristles, and 1in. thick over the leather, the wood should not be more than ½in. thick, if these conditions are fulfilled we get the very best and most serviceable flat brush that can be made. Good flat brushes are often spoiled by neglect of the commonest precautions when in use, some men have a habit when working, of pressing hard upon the sides of the brush, and thus wearing away the bristles on the outside, making it thin in the middle and swallow-tailed. These men seem to think that they must make as much noise as they can, when working on a ceiling or wall, by slapping the work with the

sides of the brush so that it can be heard all over the building, now nothing destroys a brush sooner than this method of using it, besides, they cannot lay off the colour properly by doing so. A flat brush, like a paint brush, should be worked so that it will wear evenly and equally. This is best attained by using as *little of the sides*, and *as much of the ends* of the bristles as possible. If the colour is properly mixed it does not require hard scrubbing to spread and lay it off evenly; that object being best attained by careful spreading and lightly *laying off with the end of the brush.* Brushes are also made entirely of fibre for using with caustic soda and other paint solvents, which would gelatinize and destroy bristles. From what we have said above of the make of brushes and taking into consideration the price of bristles, it will be evident that a really good brush cannot be a low priced brush, on the other hand there can be no doubt but that a good brush is always a cheap brush, because more and better work can be done with it than with a poor one.

At an early date as convenient, we shall give a descriptive account, of the various brushes and fine tools used in graining and decorative processes.

OUR ILLUSTRATIONS.

THE illustrations contained in our present number, have been expressly designed to show what may be done by simple stencil patterns; and a few lines.

The examples, consist of a double page drawing of the side of a room, cornice, frieze, door, architrave and dado.

Our second plate is a simple design for the ceiling of the same room, and the third sheet contains five useful border patterns.

Our Double Page Design.

As we have said above, we have had a special object in designing this example. We wished to show, that decorative work, need not be the costly process it is so often made; and that a room may be decorated with ornament and colour, at a comparatively light cost. To illustrate this fact, we have taken for example an ordinary sized dwelling room. The design being drawn to inch scale. The height of room from floor to flat of ceiling is eleven feet. The cornice and frieze about one foot, measuring vertically, and the dado, four feet from floor to top of border, the skirting occupying fourteen inches of this space. The cornice is composed of a narrow flat or frieze, a cove or hollow, and various mouldings; the cove and frieze having stencilled ornaments upon them. The wall space upon which the pictures hang, occupies about five feet ten inches. There is no absolute rule as to the height of the dado, it might, with propriety, be only a few inches above the height of the chair-backs. A good guide, is, to take the height of the top side of the lock-rail of the door, and make the dado the exact height of that. But, if there are children in the house, it is always wise, to get higher with it, in order to prevent finger marks. We would draw special attention to the fact, that the whole of the ornament displayed on this design has been actually executed with stencils; in this wise; the design was first drawn three times the size as here shown, and stencils cut for all borders, panels of doors, dado, &c., and stencilled on to the design, some of the ties on the door panels being afterwards filled up. The design was then reduced by photo-lithography to its present size. The dado pattern, is a conventional arrangement of the lily, entirely original, as indeed are all the other ornaments. The door panels represent the four seasons. The primrose for spring, the rose for summer, the poppy, wheat ear, and blackberry for autumn, and the holly and mistletoe for winter.

With regard to the colouring for this design, it may be done in a variety of styles, and will, of course, be governed by the particular circumstances of the room, to which it may be applied. These conditions depend upon what the room is used for, its aspect—whether it faces east, west, north, or south. All these are circumstances which should, and in fact must, have a bearing upon the colouring of the room. It is a self-evident fact, that if it is a room into which the sun shines most part of the year, it would have to be treated in a different manner to one, into which the sun scarcely ever comes. In the latter case, we should require warmth and light in the colouring, while the former would require to be cool and quiet in tone, so as to modify the glare and heat of the sunlight. These are however matters we shall fully enter upon in due time. It may suffice here, to indicate, one or two ways in which this design may be treated. For a room of the size here represented it would always be safe to use quiet neutral colours. If it has a northern aspect we would use a salmon colour for the wall space, warm cream colour for the ceiling, and two shades of neutral green for the dado, the latter colour being made from green, white, and sufficient venetian red and umber in it to modify the green and make it into a dull warm neutral colour. The pattern on the dado to be stencilled on in a darker shade of the same colour. The border on top of dado would be best stencilled upon the wall colour, and may be in the same colours as the dado pattern. In colouring the cornice we should have portions of the mouldings left white. The bottom flat or frieze should be done the same colour as the flat of ceiling and the ornament stencilled in a lighter tint of the same colour as the border at top of dado. The cove or hollow of cornice should be done in with a colour made from the salmon colour and ultramarine blue, and the ornament stencilled upon it with the same colour made much warmer with Indian red.

We have now to consider the colour of the woodwork. Persons of quiet tastes, might have the panels of the door done same as the ground colour

of the dado, and the stiles of the colour of the stencil, with mouldings picked in, in the different tints used in the room. In this case we should stencil the ornaments on the panels with the stencil colour used on the dado and outline them with a darker colour of the same, having a little Indian red and black mixed with it; this with the addition of a little gold upon the beads of mouldings next the panels, and on the architraves, would make a quiet and good-looking style of doing it. Or the work may be grained and the ornament stencilled in black upon it. Another way of doing the woodwork would be by painting it in low-toned colours such as warm golden browns, with mouldings black and gold and ornament stencilled in black.

Design for Ceiling.

This design is exceedingly simple in character and comprises corners, which may be used alone, and ornament for the centre of each side of the room, and an ornament for the centre of ceiling. This latter, can, of course, only be used on a ceiling not having a centre flower upon it; on a small ceiling, the ornament for the centre of each side of the room, may be used without the corner ornaments; the corners being left with the lines meeting at right angles, or the corner ornaments can be used alone, and the centres omitted. If the ceiling design is used with the room decoration shown, the ornament may be put upon the cream colour in a deep dull gold colour, not too yellow.

Designs for Dado Borders.

Some of these border patterns may be used for bordering panels, for cornices, or upon ceilings and dados. They are just half the proper working size, but may be used for many purposes, in the size here given. It will be observed, that these designs are of a mixed character, part of them having the ground cut away, and part the pattern; this plan enables us to put in two or more colours with one stencil, particulars of the various methods of doing this will be found in our article on stencils and stencilling.

Since our double-page illustration has been in the lithographer's hands, we have received a letter from one of our subscribers at Congleton, and as it has some bearing upon this design, we quote it here, in order that we may point out, how that in this and similar designs, we have, and shall give, may be worked so as to meet the want he alludes to. In his letter he says: "I think you would enhance the value of your journal, and confer a great boon upon your subscribers, by giving now and then a few suggestions with illustrations of the treatment of the best rooms, staircase, &c., of house of a rental of about £30 per annum in which a room could be decorated in a simple way for say from £5 to £20. I should appreciate it very much and I know others in the trade who are of the same opinion as myself in the matter and would become subscribers if it were done." If our correspondent will refer to our back numbers he will find that we have already given some examples of decoration of an inexpensive character, and it will be seen by the side of a room given this month, that we are travelling in the path he indicates. Since reading his letter, we have decided to state the amount of time men who are at all accustomed to stencil work and lining, should occupy, in executing the ornamental work contained in such a room. But as the price of skilled labour varies so much in different parts of the country, we shall leave each employer who reads this article to calculate the cost of the labour involved according to the peculiar circumstances of position.

It must be understood that we confine our estimate of the time in which the work can be done, strictly to the ornamental work, not including any preparatory painting or after work, that is a matter we presume every employer will understand and judge of for himself. A proportionate room would be about sixteen by twelve, and ten feet six or eleven feet high. This is about the size of the best rooms in a thirty or thirty-five pound house. We will suppose that the room has to be decorated exactly as shown in our example. For our purpose we will presume that the workman is well up in stencil work and lining, but if he should not be thoroughly practised in the art, then the employer will have to supplement our estimate by the additional time his man would take beyond the limit we have fixed. A thoroughly efficient workman should stencil and line the ceiling in two days, and if we give him one day each for stencilling the ornament in the cove of the cornice and that on the frieze, he would have ample time to complete them. For stencilling the diaper on dado and border to same, we will give him three days, and one and a half days for stencilling the panels of door and architrave, but if the ornament on door is outlined then we would add two days more. Without the outlining, this gives an aggregate of eight and a half days which we consider ample time. Take the cost of labour, then add a legitimate profit, and the whole will not amount to a large sum. There is of course the cost of the stencil patterns to add. Take away the diaper on the dado, and simply put on the borders, and the cost is still further reduced. The ornament in the cove might be left out, and there would be another day's labour saved. Now we are not speaking at random in thus apportioning the time. We know it can be done. As we said at the commencement of this article, the decoration of a room need not be expensive.

ALBISSIMA PAINT.

We have much pleasure in informing our readers that at the recent Sanitary and Domestic Exhibition held at Brighton, the Albissima Paint Company were awarded the Silver Medal for the excellence and superiority of their special manufacture. When we state that J. G. Crace, Esq., and Major Edis, F.S.A., F.R.I.B.A., were amongst the adjudicators, our readers will at once apprehend that the award was made on no insufficient grounds. The Company have recently been extending their agents' list, and amongst the well-known houses who are now selling their goods, are Messrs. Samuel Wills



W. Sutherland, Invt. A. A. Sutherland, Delt.

SIMPLE DESIGN FOR CEILING DECORATION, IN STENCIL WORK.

and Co., of Bristol, and Baxendale and Co., of Manchester. We can fully endorse the testimony which we gave to "Albissima" a few months ago. Our first use of it was for decorative purposes, but we have since employed it on outside cement work with equally satisfactory results.

MESSRS. CUNNINGTON & CO.'S PATENT.

MESSRS. CUNNINGTON & Co. have followed up their now celebrated paperhangings known as "Crystal Damask" by securing a patent for a new combination of gold with the process, under the name of "Frosted Gold." We recently had the pleasure of inspecting their patterns for the new season, of which more anon, and at the same time seeing what a valuable addition to decorative materials the new paper supplies.

The application of mica does not in any way interfere with the full value of the various colours, indeed it adds to it by softening down any roughness that might otherwise exist; and the valuable property imparted by the mica in the soft bloomy texture produced on the wall, is obtainable by no other means. These advantages are now,—very happily we think,—turned to further account, by the introduction of the "Frosted Gold," which, in its artistic effect, is simply admirable.

We all know that the objection to the use of ordinary gold papers is twofold: first, the garishness, apparently unavoidable, which the gold gives to the general effect, and, secondly, the tarnishing of the metal which ultimately follows.

The "Frosted Gold" papers meet both difficulties, the first effectually and completely, and the second in a very large degree; for while Messrs. Cunnington do not wish to claim for their speciality anything which practical test will not sustain, they rightly assert that the intervention of the mica between the metal and the atmospheric influences, must of necessity, add very much to the permanency of the gold. Of the artistic value we cannot speak too highly: the mixture of the mica with the metal, while it retains the reflective qualities alluded to, has likewise the effect of softening down the harshness of the gold and giving to it a tone similar to that found in old tapestry work. We also noticed that the "Frosted Gold" papers are effectively seen in all lights, thus realising the full advantage of their subdued tones in positions where the ordinary metal would be lost. We most heartily commend these productions to the careful consideration of the trade. Of Messrs. Cunnington's usual pattern-book we can speak a good word of praise: they cater for all classes of buyers, and their pattern-book will be found of advantage in any decorator's shop. Some fern designs printed both in the "Crystal Damask" and in the ordinary way are exquisite in design, and will make very beautiful work.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 155.)

CHAPTER XV.—INLAYING OF WOODS.

STRAP ornament, in the Elizabethan style, or interlaced lines of various breadths, arranged in geometrical forms, are well suited for inlaying. A series of lines of different coloured woods running under and over each other, embodied in a general design, afford a good opportunity for the display of knowledge and skill in design, and harmony in the disposal of the colours. Here we may take the opportunity to observe, in reference to the art of design, that we find a great number of workmen who are able to execute works in a mechanical sort of way, and very accurately too, who have no knowledge of drawing or design; others again have a talent for putting scraps of ornament together (just as printers do with their stereotyped corners and borders) and so producing what they are pleased to call original designs; there are others who are exceedingly economical in this respect, and make a few designs answer all purposes, and go on year after year modifying and adapting these one or two designs, thus acquiring a reputation as decorators, founded upon an exceedingly small capital of originality indeed. It is certainly a matter of surprise, considering the facilities for acquiring a knowledge of drawing and design put within the reach of every one, how very few really original designs are produced. Whether this arises from some imperfection in the course of study which obtains in our schools of design, or whether originality is a special gift only possessed by a few, is a question we will not enter upon here at present, but, that we state a fact, is fully evidenced in all branches of ornamental design. Ornament for inlaying should be specially designed for the article it is intended to decorate. A design which would be suitable for a cabinet, would not be appropriate for a door panel or a wardrobe. The style of ornament also should always be a matter of consideration. The incongruous conglomeration of ornament we sometimes see applied in these ornamental days, is in many cases perfectly ridiculous. The design should be in accordance with the style of the article, or thing to be decorated. It is certainly a mistake and a bungling act, and shows a sad want of taste and knowledge, to put a Gothic ornament on a classic structure, a Chinese or Japanese ornament on a Gothic work, and yet this is done every day by those who have had the opportunity of knowing—and ought to know—better.

The choice of woods for inlaying, will be in a great measure, governed by the nature of the design, and the special purpose it is used for. Colour also is quite as essential to the complete success of any

work of this kind, as design, for however good the design may be, if the colouring is not harmonious, the finished effect will be vulgar and unpleasant to the eye. By a judicious use of the various coloured woods a richness, and even splendour of effect, may be produced, with quietness and repose; the two not being incompatible. In using wood inlays, we have the advantage that if we want a particular colour and we have no natural wood of that colour, we may, with propriety, use a staining colour to produce the colour we want. We have the highest authority for this practice. When imitating inlayed woods on painted work (having decided upon the design and colour before commencing the work) we should see that the ground for working upon is properly prepared, smoothness and a level surface is an indispensable requisite to the success of all good work, the ground should also be prepared of such a colour, as will serve for the lightest wood as well as the darkest. In some cases the ground may be white, but we prefer that as a rule it should be of a light cream colour, depth and richness of colour being produced afterwards by glazing. This is absolutely necessary, as it will be plain to the meanest comprehension, that if we were to paint in the various coloured grounds for the different woods, we should make a very uneven surface, which would destroy the effect of the whole when finished, care must be taken so to manipulate the different woods, that when finished there shall be no difference in the level of the face of the work. In many cases the ground itself may be grained wood such as maple, light oak, sycamore, &c., &c. On these grounds the inlay must of necessity be imitations of woods of a much darker colour and stronger grain than that upon which it is grained in order that the grain of the underwood shall not be perceived through the grain of the inlay. Walnut wood upon oak or maple does this effectually, and as a simple inlay, is very effective and appropriate in colour, and where breadth of treatment is desirable, two or three woods will often be found sufficient for all the purposes of effect both in design and colour. A much more extensive use of this admirable style of decoration might be made if the decorator would be content to use simple designs, which would be comparatively inexpensive in the execution, and quiet in colour. This is especially the case at the present time when so much new woodwork in dwelling houses, churches, and public buildings is being stained and varnished, or polished, on the bare wood, or left unstained. A wide field is here opened for the application of ornament in these cases, enhancing the beauty of the surface, while retaining and improving the natural beauty of the real wood. We ourselves have applied it in this way with thorough success, in fact if the wood be pitch pine having a curly grain (as much of it has), very beautiful work may be done equal in appearance to the real inlay, and may be either done upon the varnished or polished wood as we would work it upon paint, or done by stains which penetrate into the wood itself.

The grounds for inlaying should be got up to as level and smooth a surface as possible, so that the work when finished may have a fine surface, whether left simply varnished or French polished.

There are several methods of transferring designs to the surface to be ornamented, amongst which are, tracing, pouncing, and stencilling. In tracing, the back of the design is rubbed over with either fine whiting, dry white-lead, pipe-clay, French-chalk, or any other substance of a like nature, if the ground work be dark enough to shew the white tracing, care being taken to have only sufficient of the white upon the paper to be just perceptible, if too much is put on, it will interfere with the sharpness of the outline in working. But if the ground be light in colour, the paper should be rubbed with charcoal, blacklead, Indian red, or any coloured chalk may be used. The design is then placed upon the surface to be inlaid, and the lines gone over with any convenient tracing point, an ordinary hard blacklead, or ivory or bone tracer will be best. The effect of this is to leave a *fac simile* of the ornament upon the ground, in faint and fine white lines, or dark ones as the case may be. When the pounce is used, the design must be pricked through all the lines of the design with a fine needle, fixed into a small handle made of a thick pencil stick. The best way to make or fix the needle into the handle, is, to cut through the stick to half its thickness, then split it down to the cut part, which may then be removed. We now place the needle on the stick with its head or blunt end against the solid part of the stick, and replace the part of the stick previously removed, back again into its place, enclosing the half of the needle between the two, and tying them securely together with thin string or strong thread. The mathematical instrument makers, supply handles for prickers, in which needles can be changed at will. When the design is properly pricked (a little extra time spent in carefully and closely pricking will save much after trouble, when we come to the pencil work) it must be laid upon the work and dusted and rubbed with the pounce bag, when the design will be transferred through the perforations made by the needle, on to the work; and will appear in fine white dots upon it. The pounce bag used, may be made of fine muslin, filled with powdered chalk, or charcoal. Ultramarine blue is a good colour for some purposes. The bag should be tightly tied into a round ball, and in using should be first tapped over the design in places, then rubbed with the bag.

(To be continued.)

The Galleries at Burlington House, which have been re-painted since the summer exhibition by Messrs. Holland and Co., look all the better for their new vesture; the ceilings are done in vellum colour, reds and gold broadly distributed. The central hall, in its quiet harmonies, is most successful. The entrance hall is done with a flock paper picked out in two shades of green. The whole job is a good illustration, of what can be effected by simple means, both chromatic and linear.

On Wednesday, the 18th ult., Mr. F. E. Hulme, F.L.S., F.S.A., delivered an address before the Society of Arts, John St., Adelphi, on "Botanical Science in its relation to Ornamental Art." No man is more qualified to discourse on such a theme than Mr. Hulme, and the advice which he gave his hearers, and the much wider circle of readers, outside, to go out to Nature herself, and study well all she has to tell us, was not only wholesome, but necessary. Mr. Hulme, himself, is a living exemplification, of the truth of his teaching.

MEASURING-UP AND PRICING PAINTING WORK.

(ALL RIGHTS RESERVED.)

Continued from page 156.

CHAPTER II.

WE cannot do better, than take a good middle-class house, of a rental, say, from £70 to £100 as our representative subject, and commmencing with the drawing room take the respective rooms and passages in their order of position.

DRAWING ROOM.

Ceiling (supposed size), 18ft. × 15ft.=270 sq. ft.=30 sq. yards.

Measure the flat surface only, 18ft. × 15ft.

Note, first, the state it is in, if badly cracked, then a sum must be put down for cutting out and making good; secondly, will it require lining, if so, allow 6 sq. yards to a piece of paper and by dividing the total area of the ceiling by 6, viz., 30÷6, we arrive at 5 pieces as the quantity of paper we shall require—this is worth from 9d. to 1s. per piece according to quality, to which must be added, another 9d. per piece for hanging.

If the flat has to be distempered on the top of the paper 4d. a yard will pay for the preparation and whitening or tinting.

If painted, not less than four coats will be requisite, (five are better) and the joints of the lining paper, will have to be "filled up" and rubbed down smooth, between the first and second coat. This is worth 3d. per square yard, and the four coat work, (flatted in the fourth coat) is worth 1s. per yard more.

Cornice, 18×15×2×2·6 in girth, containing two enriched members.

This is a part which requires careful measurement and estimating for, as it is one, necessarily involving a large expenditure of time; which is only another name for money. It is especially incumbent on the contractor to see the state the enrichments are in, if they have been distempered, we all know their tendency to get clogged up, and before anything like tinting can be satisfactorily done, this must all be cleared out so as to leave the ornament sharp and clean. Two separate measurements are needed, the first the entire length of the cornice, multiplied by the girth. In taking the tape over the girth, be very particular to follow the projections and indentations of the various members, as this is all legitimate measurement and adds considerably to the total superficial area. When you have got this into square feet or yards, price it at so much per yard. Take the size given in italics above for illustration—the two sides of the ceiling =33ft., which doubled give 66ft. × 2·6 girth, yields 165 sq. feet or 18⅓ super. yards. The extra labour involved in painting this is equivalent to three times the value of the plain painting, exclusive of preparatory work which would thus be 3s. per sq. yard. 18⅓ sq. yards @ 3s. gives 55s. for the plain work. To check this, calculate how long it would take two men to paint it one coat, add the value of the paint, and multiply it by four times. This disposes of the plain painting, and we next have to deal with the tinting or decorating.

Tinting.

We shall be well within the number, if we assume that, the cornice we are painting, contains fourteen or fifteen members, two of which are enriched. Each of these members that are separately tinted, should be measured and priced distinctly—from 1d. per foot per member is a fair price. Thus if our fourteen members are picked out with nine tints, exclusive of the enrichments, this will make 9d. a foot run. The enrichments must be charged on their merits, if they are simple in form and simply tinted, then the cost will be very small; but if there is much picking out, 3d. and 4d., up to 6d. per foot, will be needed to meet the cost.

Gilding and Etching.

Pateras are charged so much each. Any members gilt are charged from 3d. per foot run, according to their size. Etching—enriched members, would run from 9d. to 1s. 3d. per foot, in proportion to the work.

Stencilling.

Should the principal cove, or any one of the projecting members, be stencilled, this will be charged for separate, so much per lineal foot, according to its size; a 6 or 8in. cove stencilled in one tint would be worth 4d. to 5d. per foot; smaller members proportionately less.

(To be continued.)

TRADE INTELLIGENCE.

"LINCRUSTA WALTON."

THE Manchester depôt for the sale of "LINCRUSTA WALTON has been transferred to new premises, situate in Deansgate, No. 96, the first door from St. Mary's Gate. Mr. F. T. Fardon is in attendance, and will be pleased to show any members of the trade calling on him specimens of this special material. We are strongly of opinion, that the trade do not avail themselves, to the extent they might, of the advantages which "LINCRUSTA WALTON" offers them. In addition to the application of it to wall surfaces, as, Dados, Borders, Friezes, and Fillings, many jobs can be done, in the way of panelling doors, shutters, &c., with most artistic results, and at a very small cost. The reduction in price which the proprietors announce this year, coupled with the extended range of patterns, brings it more within the reach of the bulk of the Decorating trade. Attention is also invited to the Pamphlet for 1882, which gives the comparative cost of Lincrusta with other wall decorations, and furnishes much useful information, sent free on application. The Litho. Pattern Books have been likewise enlarged and are in themselves works of art.

BOUND VOLUMES.—A very limited number of Volume I. of the *Journal of Decorative Art* now remain on hand, and after the present supply is done, we cannot issue any more, as Parts II. and VI., 1881, are now out of print; subscribers, therefore, desirous of obtaining a copy, must make early application, otherwise it will be too late. The volume contains two high-class coloured plates, 18 × 13, showing decoration of Drawing Room and Billiard Room, forty-four pages of illustrations specially designed for House Decorators, and 144 pages of sound technical instruction and information, of the highest value to the trade. Price 9s., post free, 9s. 6d. To be had through any bookseller, from Henry Vickers, 317, Strand, or direct from the Head Office, 1, St. James's Square, Manchester.

THE Reredos of St. Michael's Church, Bristol, has recently been decorated by Mr. T. B. Webley, of Perry Road, in that city. From the account contained in the local papers, the work appears to have been very successfully carried out.

WALL DECORATIONS AT HUGHENDEN CHURCH.

MEMORIAL OF THE LATE EARL OF BEACONSFIELD.

THE mural paintings in the sanctuary of Hughenden Church, which have been completed as part of the memorial to Lord Beaconsfield, were solemnly dedicated on Christmas Day. Starting from the floor of the sanctuary to the string-course, about 4ft. in height of the wall (says a Buckinghamshire paper), is painted a very rich vine pattern in two shades of Venetian red, with clusters of grapes in gold. The altar is marked out with a band of gold, and on either side is a design of wheat. It is surmounted by a wreath of Passion-flowers, painted in red on a gold ground. The panels over the altar-ledge are painted on Sequoiawood, the centre containing a lily and frankincense, the side panels having roses, on gold quatrefoils; the stone mouldings are picked out in gold designs of grapes, flowers, etc. Within the splay of the east window an elegant branch of frankincense is painted in Venetian red, the stonework being gilded and painted with olive branches and birds. Above the string-course on either side of the altar are vesica-shaped medallions, containing half-length representations of the four greater Prophets, each holding in his hand the symbol of his office and character. Above these, divided by a band of pomegranates in gold and vellum, are full-length figures of the four Evangelists, each surmounted by a canopy. They are painted on a gold ground-work. Above the canopies are quatrefoils in red, with representations of cherubim. Just above these is a cloud-line with stars, from which springs a bold vine pattern in gold, broken by five medallions, containing figures of angels bearing censers representing the nine orders of the angels. Each figure bends downwards, gazing upon the central figure of our Lord in glory, in the east window. A rich band of crimson follows round the moulding of the window, on which are pomegranates in gold, the band being broken by seven medallions, each containing a dove, as an emblem of the seven Gifts of the Spirit. The groundwork of the roof over the sacrarium is gilded; the side-walls, as far as the altar-rails, are powdered with marguerites in red; while over the arches, north and south, are bands bearing a design of figs and leaves. In front of the credence is a design of a cross with rays, bordered with wheat. The whole design and execution of the work, which is highly spoken of by those who have seen it, has been carried out by Messrs. Heaton, Butler, and Bayne.—*Builder*.

ANSWERS TO CORRESPONDENTS.

SILICATE WATER PAINT.

T. C., LIVERPOOL.—An esteemed correspondent, has written us, stating, that on the faith of our representations, he has obtained some of the above distemper; but that in using it the result has not been at all successful; we have already answered our correspondent through the medium of the post, but for the benefit of our other subscribers and readers, we state here as near as possible what we wrote in our letter; and if the instructions we give are followed, we guarantee a satisfactory issue. We may make this remark in passing, that our readers may rely on it, that before we give our verdict on behalf of any material, we first thoroughly test it ourselves. In preparing for the use of the Silicate distemper, care must be used to wash clean off all old distemper, &c., from the wall, then make good the holes and cracks in the usual manner, the walls should then be prepared with a coat of the transparent "Silicate" (if there is much pointing it is well to give the walls two coats of this preparation), allow this to stand for two days, then dissolve your paste "distemper" with warm water to the consistency of thick paint, and first coat the walls, laying it off carefully with the flat brush, the second coat which can be applied on the following day, should be *stippled*, this is almost certain to produce a solid job, if it is a "Drawing-room" or best room, a third coat can be given and stippled. We are positive that if these directions are followed, work can be obtained, quite equal to any flatting.

MR. JOHN CLEGG, CONGLETON.—We are always pleased to receive communications of the character of yours of the 7th ult., as indicating an intelligent apprehension of what we are striving to accomplish. You will find in the remarks contained in the article descriptive of "Our Illustrations" that we have been prompted by the same considerations that dictated your note.

MR. A. THOMPSON, BELFAST.—Thanks for your letter of the 10th ult., and for your endorsement of our efforts, your suggestion relative to external decoration, we will not lose sight of.

MR. J. ADAMSON, MONTROSE.—We thank you very much for your kind expressions of appreciation, it is most gratifying to us to have our endeavours thus recognised. In the course of another issue or two we shall have some articles on "Sign Writing" which we purpose illustrating in a very complete manner. Many so-called books of alphabets are published, but as a rule they are not of much practical value to the trade. We forward on to you the bound volume.

MR. J. S. ARMSTRONG, ALFRETON.—We are pleased that our efforts have met with your approval. We said "Order through your bookseller" with a view to make the news-agents familiar with our paper, there ought to be no difficulty in obtaining it, as both Mr. Henry Vickers, London, and Mr. John Heywood, Manchester, are known all over the country, and the *Journal of Decorative Art* is always in their hands before the first of the month.

MR. J. S——, BURNLEY.—All silver leaf for banners, or in fact for any other purpose, if exposed to the atmosphere, must be protected, or it will be sure to tarnish. We know of no better plan of doing this, than varnishing the letters with copal or carriage varnish, a bare coat will suffice.

MESSRS. G—— BROS., FROME.—In answer to your first question, as to the best mordant for gilding upon glass so as to assure a good burnish, there are several little matters which are indispensable to the success of this work, which are often overlooked or neglected, and upon which, success or failure depends. The joining of the leaves showing, is very often due to the presence of the red powder, bole, or chalk, with which the gold books are done over, so as to prevent the leaf sticking to it. Of course this does not matter for ordinary gilding, but for glass, books having this powder in them should not be used. The gold beater will supply the leaf without this powder on it. We have at various times tried all sorts of recipes, some we have paid dearly for, but have never found anything to supply a better medium for the purpose, than *best* refined isinglass; and even this will not produce the desired effect if it is used too strong or if it is not perfectly clean. It is only required to be just of sufficient strength to hold the gold until it is burnished with the cotton wool. A few shreds of isinglass dissolved in a pint of pure filtered water is all that is required. A *clean* enamelled pan, or pipkin, must be used, so as to avoid grease and other foreign matters getting into it, with this and a clean brush and clean glass, perfect uniformity in burnish may be produced. Double gilding is always requisite to make a good job, also repeated washing with hot water; with these precautions we do not see how you can fail to produce good work. We shall in due course issue several articles treating in the most comprehensive manner of glass gilding, silvering, &c. With regard to your second question, there is no better stopping out medium than Brunswick Black, a little white wax melted and added to it helps it a good deal. But many a job is spoiled by not allowing the black to get sufficiently hard or set. Another course of failure is using black into which dust or dirt has fallen. The Brunswick Black should be perfectly free from any foreign matter, with the fluoric acid used of the proper strength so that it does not bite too savagely, there should be no danger of breaking up.

"RELIEVO," HUDDERSFIELD.—Question answered above.

MR. J. W., ACCRINGTON.—It would be invidious on our part to make comparisons between the two houses you name, both of them have too great a reputation, to peril it by sending out inferior articles; we are sure Messrs. Crowden and Garrod's goods will give you the highest satisfaction.





W. Sutherland, Invt. A. A. Sutherland, Delt.

Photo-Lithographed by W. Kleinert, Manchester

PANEL DECORATION IN INLAID WOODS.

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The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] MARCH. [PRICE 7D.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

JOURNAL OF DECORATIVE ART EXHIBITION.

WE particularly desire the attention of Competitors to the following Regulations:—

All articles for Exhibition and Competition, must be sent off so as to arrive at the Agricultural Hall, not later, than Thursday the 16th of March. To avoid unnecessary trouble in fixing, all panels, &c., must be properly fitted with rings ready for hanging.

Competitors from the Country are requested to give special attention to the careful packing of their designs, so as to avoid injury in transit.

Competitors residing in London, and personally delivering their works, must deliver them to our representative, on the afternoon of Thursday the 16th of March, in the West Gallery of the Hall.

Visitors to the Building Exhibition, will find the "Journal of Decorative Art Exhibition" at the far end of the Hall from the General Entrance, access to which can be gained by the entrance stairs directly underneath the West Gallery, or at the sides. The April issue of our Journal will contain a full descriptive report, both of the "Building" and "Decorative Art" Exhibitions, with the names and address of the successful competitors, and at as early a date as is compatible with good work, we shall publish in colours the designs which take First Prize in Section I. Class A., Section II. Class D., and Section II. Class E.

The Exhibition opens on Monday, March 20th, and closes on Saturday, April 1st.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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CHAPTER XVI.—DECORATIVE PROCESSES.

IN cutting stencil patterns, great care and much practice is required in order to produce good work. Sharp, clean cut and correct working patterns are indispensable. They should be so arranged and cut that no piecings shall be seen in the working of them.

Various substances are used for cutting stencils upon, the best being some hard substance that will not be affected by the knife blade. Some use hard wood, sheet tin, zinc, &c. Wood is a poor surface for this purpose, as it soon gets cut up and unfit for use, and in this state it interferes with the free run of the knife, especially in curves. Sheet tin and zinc have the same objectionable qualities, but in a much less degree. We therefore prefer a sheet of glass for cutting upon, as the knife is free to run in any direction without being obstructed. A square of polished plate is the best, as having a more level surface than any other kind of glass. There are several kinds of knives used, some preferring one and some another, but a good hard and well-tempered blade is necessary, whatever the shape may be. The blade should be narrow and not thick at the back edge, it will then be much easier sharpened and kept in order. Capital knives for the purpose may be made by putting a penknife blade into a thin straight handle about four inches long having a brass ferrule tightly fitted upon one end. Loose blades may be purchased at the cutler's and fixed into this handle, and replaced with new ones as each one gets used up. This plan will be found better and cheaper than buying special knives for the purpose.

In cutting curves, it is a good plan while holding the paper close to the glass with the left hand, to gently move the paper in the opposite direction to that in which the knife is cutting, that is pushing the paper against the blade, by this means we are better able to cut the curve correctly than if the paper is kept stationary. Of course this cannot be done if the stencil is very large. Circles of all sizes (up to 1½ inch) are best cut by steel punches, which may be purchased at any tool-maker's or ironmonger's. Half-circle punches are also very useful for cutting half-rounds, and curved lines and leaves, and many other parts of conventional and geometrical ornament. When cutting with these punches the stencil should be placed upon a level piece of hard wood—box is the best, but baywood will answer the purpose. A thick piece of lead may also be used, but we prefer the wood as it can be

so easily planed and made level again when it has got rough with the marks of the punch.

In cutting straight lines, a steel straight-edge is best to cut against. When wooden straight-edges are used, the knife is very apt to cut into the wood and the edge is of course spoiled, therefore it is best to use the metal one. The narrower and finer the point of the knife the better it is for the work, inasmuch as when the point or end of the blade is broad or blunt, the lines of the pattern will not be so easily seen, and its breadth interferes with its use in short curves, and there is always danger of cutting further than we should, and thus severing the ties, making them weak and liable to break and part asunder, and causing much trouble and loss of time in repairs, whereas with the narrow blades described above, this danger is reduced to a minimum, and from their form they are easier kept sharp and fine pointed, and no difficulty is experienced in seeing what we are doing.

Stencil patterns may be cut out of a great variety of material. Ordinary drawing papers, linen paper, (that is, drawing paper with thin linen or calico on one side firmly secured to the paper in course of manufacture, which gives it strength and tenacity, and lessens its liability to tear),—this requires to be used with great care, or else the threads of linen or calico, get loose and cause rough edges,—tin foil, thin sheet lead, and thin sheets of brass or copper are all used for stencils. All of these make capital stencil plates for certain purposes, but we prefer to use the ordinary wide width cartridge paper. It should not be too thick, the very thick is apt to be brittle, a medium strength is the best. This paper may be got from any artists' colourmen or the large stationers' shops, it is four feet six and five feet wide, and of any length. A very tough and serviceable stencil paper may be made by putting two or three thicknesses of the ordinary white lining paper together with patent knotting. Only the best paper should be used. Two sheets of the size required should be well saturated with the knotting, and laid one upon the other while the knotting is wet, care being taken to press out all the air bubbles so that the two will be perfectly united. This is best effected by pressing gradually with the hand or a folded cloth from the centre to the outside edges, and the board or table on which this is done should be level. When this is dry and hard it will cut sharp and clean, and be very tough, which qualities are necessary, and in fact indispensable in a good stencil paper. After the design is cut, another coat of the knotting will add to its strength and usefulness. In using the wide cartridge paper it will cut sharper and better if after the design is drawn upon it we give it a thin coat of the patent knotting,—that is, the ordinary patent knotting thinned down with wood-naphtha—which tends to make it tough and serviceable, and enables us to use stencils of paper for working in distemper colours, the knotting making them impervious to wet or damp; it also enables us to wash them with turpentine, when done with for a time. The gum shellac, of which the patent knotting is made, being dissolved in wood naphtha, the turpentine has no affinity with it, and in consequence may be used in cleaning the paint off the stencils, while if naphtha were used, it would dissolve the knotting. The paper used should be of the best, firm in texture, and as free from blemishes as possible, as some of it is coarse and has small specks in it, which in cutting are apt to catch the knife, and rip or tear the paper. Very thin paper such as best writing paper may be used for small stencils, indeed there is for some purposes a decided advantage in using firm thin paper, especially on smooth work which is near the eye, as it lies so close to the surface of the work, that a much more correct impression of the pattern may be obtained with it than with the thick paper. It has an advantage also in being so easily cut, and it may be taken as a fact, that the closer and flatter the stencil lies to the surface of the work, the sharper and more correct will be the impression left by it.

We may here give a few words of caution as to the using and taking care of stencils. They are often broken and spoiled from want of care in using, and from neglect when laid aside for a time. When in use the stencil should always be kept as close as possible to the wall, ceiling, or wood-work it is being used upon. If it is not so kept, the constant dabbing or rubbing of the stencil brush is sure to break it. This is especially dangerous on wall surfaces which as a rule are far from being level. Another cause of frequent breakage is experienced in turning angles in the corners of rooms. This should never be done with the stencil used for the straight part, but a duplicate stencil should be cut to be used for turning corners alone, in order to avoid breaking or injuring the one used for the straight parts. When stencils are done with for a time, or the stencil colour has accumulated upon them so that they will not leave a sharp or clean impression, they should be placed upon a flat board and carefully washed with turpentine or water, according as oil, or distemper colour, has been used. This requires very great care in the doing. If when cleaned there are any broken parts they should at once be repaired with strong knotting and paper. It is utter ruin to the stencils to leave them (as many do) without washing from night to morning, as nothing spoils them sooner. If they are left in distemper colour, which may be washed off at any time, it soon destroys them by making them brittle and rotten; while the oil colour if left to dry, destroys the sharpness of them for ever. Stencils should always be laid flat when put away, with sheets of strong paper between each; this prevents the patterns from injuring one another by getting interlaced, and by this plan several can be laid one on the top of the other without fear of injury and with great economy of space, which is often very desirable, and it also keeps them straight and ready for use.

Good stencil brushes are of course a necessity for producing good work. It is often said that a good workman can do good work with any kind of tools, and that a bad workmen is always grumbling about his tools, but this is a kind of work which cannot be done well without good tools. A stencil brush is round in form, short in the bristles, with a short

round stump handle, set in tin, a close set mass of good bristles, perfectly level at the ends, and about 1½ inches long outside the tin. Some are however shorter in the bristles and are made of all sizes. This seems an exceedingly simple brush to make and one would think that any brushmaker would be able to make good ones; but this is not the case. And it is not at all strange, when we consider the manner in which these brushes have to be used in working—dab, dab, dab, thousands of times. This repeated striking of the brush against a hard substance, has a tendency to disintegrate and break up the cement with which the bristles are secured to the stock or handle, and with a badly-made brush this effect is soon caused, and the brush made useless. A poor brush will also work hollow in the middle, and the bristles will become loose and fall out in working. Now the requisite qualities of a good stencil brush, are, the best bristles well and firmly bound together in one compact mass, secured to the stock within the tin ferrule with a cement which is impervious both to water and spirit, and which shall be so hard and hold the bristles so firm that it will keep all right and bear the incessant vibration caused by the dabbing when in use. Except these conditions are fulfilled the brush will surely fail. The same rule applies to stencil brushes, as to paint and varnish brushes. To keep them in good order they should be carefully used and well and thoroughly washed out when done with for a time, and all the colour cleaned out from the bottom or stock end of the bristles. If this is not done the colour dries hard in them and they are made too hard and stiff for working, for although a stencil brush should be a firm mass of bristles, it should also be soft at the extreme end and not stiff and hard.

(To be continued.)

OWEN JONES & HIS CONTEMPORARIES.

Augustus Northmore Welby Pugin.



UGIN was the Gibbon of Architecture, says Purcell, and the saying aptly expresses the work, Pugin was able to accomplish. Judged by the standard of modern efforts, Pugin's contributions to the literature of constructive and applied arts, are lacking in the "rounding off" and "finish," of his more recent rivals, but, measured by the standard, to which alone they ought to be compared; that, which he set before himself, of pioneering the revival of the love for Gothic art in England, then they remain a lasting monument, to his artistic insight and untiring industry.

Had he have done nothing else than write and illustrate these books, they would have been no mean life's work, but when we remember, that they were all written, and illustrated, in the "interstices" of a professional career, crowded out with duties of all kinds, and that the entire life extended only over a period of forty-two years, we are compelled to pause and wonder, at the almost superhuman energy; which he was possessed of.

Pugin's work came at a time, when the ground was most receptive for it. The long war which terminated on the fields of Waterloo, was followed by a period of great mental and intellectual lethargy, so that the early years of this century were distinguished, (in its displays of constructive art) in all the faults of an effete and lifeless system. The traditions of Wren, had passed into oblivion, the earlier Georgian work had been superseded by work which was destitute of any claims to regard or admiration, and both the public and the profession, were in that condition of mind, to receive and welcome new ideas. There had been some slight efforts made to direct the public taste into purer channels, but they had followed in the orthodox groove, and had been received with the orthodox amount of regard, and, no more. It was necessary for the work that had to be done, that the Physician, should be a man of almost inspired purpose, and power. "One man only could be found sufficiently bold, and sufficiently devoted, to realize the colossal works which all felt were wanting. The wit, humour, and exaggerated views adopted by Welby Pugin for the accomplishment of the revolution, were often personally abusive, always painful, and sometimes dangerous. But they were weapons to achieve victory, and instruments for effecting great results. Others tried different roads and failed, whilst the mass of men wallowed in the vulgar utilitarian style of the nineteenth century, a few carried away by enthusiasm, but without a knowledge of the grammar, followed only in a servile manner, the glory of extant examples. All were found wanting. Some men must be judged, not by their accomplished works, but by their conceptions. The buildings Pugin has left behind him are nothing in comparison to his splendid theories. England called for a renovation, Welby Pugin answered the summons. The country looked for the spirit of reformation, Welby Pugin imposed upon her the despotism of the ancient art, whilst giving her the alphabet by which to form her own expression."

The first work which drew public attention towards Pugin was his "Contrasts, or a parallel between the Noble Edifices of the Fourteenth and Fifteenth Centuries, and similar buildings of the present day" published in 1836.

The appearance of this work excited the strongest feelings of reprobation and resentment amongst the profession against its author—it was certainly conceived and written entirely from one standpoint, the worst possible specimens of classic work being placed in juxtaposition to the best examples of mediæval architecture—but much that Pugin then said, and was scouted for saying, has been demonstrated by subsequent events to be true.

Its immediate effect was sensational, but it opened the eyes of the public, to the actual state of affairs, and served to quicken, and give force to the movement for something better and more consistent with true principles. A song written by an Irish

*

gentleman, and which appeared in the pages of the *Builder* is well worth giving here, for its sparkling fun and humour.

SONG ON PUGIN'S "CONTRASTS."

Oh! have you seen the work just out
By Pugin, the great builder?
"Architectral Contrasts" he's made out
Poor Protestants to bewilder.
The Catholic Church, she never knew,
Till Mr. Pugin taught her,
That Orthodoxy had to do
At all with bricks and mortar.

But now it's clear to one and all,
Since he's published his lecture,
No church is Catholic at all
Without Gothic Architecture.
In fact, he quite turns up his nose
At any style that's racent,
The Gracian, too, he plainly shows
Is wicked and ondacent.

There's not a bit of pious taste
Iver since the Reformation;
'Twas Harry the Eighth, the nasty baste
That introduced the Gracian.
When they denied the truth outright
Of Transubstantiation,
They built them in the Composite—
That great abomination.

Next thing their frien's to build dozing pews
In the most systematic way go;
They'd be kilt, they say, the other way,
With rheumatics and lumbago.

Some raised a front up to the street,
Like ould Westminster Abbey:
And then they think the Lord to cheat
And build the back part shabby.
For stuccoed bricks and sich like tricks,
At present all the rage is,
They took no one in! those fine ould min!
In the pious Middle Ages!!!

A recent writer on Pugin, says his ideas on Gothic architecture, he held, not as principles, but as a faith! Pugin's contention, from the beginning to the end of his public advocacy of Gothic art, was for truth of expression; and fitness of purpose, whatever the object might be. There was no temporising, or compromising, of principles, he held his truths as a standard of right, and whatever failed to come up to it must submit to condemnation. It was this going down to root principles, which gave him such power and influence over others, and made his work valuable in modifying and forming the public and professional taste alike. In his "True Principles of Pointed Architecture" we find propositions which have become axioms, since the time he gave them birth.

While all his works are of interest to the art student, those which most immediately affect the decorative artist are, "The True Principles of Pointed Architecture" (a work, which, while it primarily deals with structural matters, contains in its principles, the governing and controlling conditions of all good work), "Floriated Ornament," and a "Glossary of Ecclesiastical Ornament."

The latter for the student of ecclesiastical art, is invaluable as a book of reference upon all matters pertaining to that special field of art work. There are no less than 75 beautifully-coloured plates, a large number of them being representations in colour of actual works, vestments, sacred vessels, &c., &c., while, interspersed with these, are a large number of conventional arrangements of various forms designed by Pugin himself. All these are supplemented by numerous woodcuts illustrative of the text. Equally valuable, is the voluminous and comprehensive, Glossary of Terms, including over 240 pages. The whole work is characterised by the thoroughness which Pugin imparted to all he did. It was published in the year 1842.

"Floriated Ornament" published in the succeeding year, 1843, was an attempt to show in what direction conventionalism ought to move: it is simply a conventional arrangement of a number of plant forms, and is in a sense one of Pugin's minor works, but it is illustrative of what can be done by the exercise of a little thought in the simple arrangement of natural forms. Many of the designs given therein, are admirably adapted for diapering purposes, and stencilled work; being broad in treatment, and simple in line, and disposition.

The danger to us to-day, comes, not from a dearth of examples, but rather from a redundancy of them, and we shall do well to ever bear in mind, that though fashions and tastes may change, principles are eternal and steadfast. Whatever knowledge we of to-day possess, over and above what our fathers knew; we owe to the labours of men who, like Pugin, spent their lives in breaking up ground into which seed could be sown, and the abundant harvest which we to-day see around us on every hand, is the witness, that in their day and generation; they were faithful to the trust committed to them.

(To be continued.)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

Continued from page 161.

CHAPTER XIV.

FIG. 21. *Paly Bendy, Argent and Gules.*

Fig. 22. *Azure, three Salmon in Pale Or.* These words, *in Pale,* are used in blazoning arms when the charges are disposed in a line one above another. The word *Palewise* has the same signification.

THE FESS.

The Fess is introduced by two parallel or equidistant horizontal lines drawn across the centre of the shield, the intermediate space being tinctured in opposition to the colour of the metal of the field, and has been borne on coats of arms from the earliest times of heraldry. As before noted, the Fess is said to have originated in the custom of the knight wearing the scarf or handkerchief of his lady love across his shield. Some ancient armourists made the Fess symbolical of the virtues of

moderation and temperance, no doubt there were in heraldry as in religion many symbols, or allegorical meanings attached to certain forms, which might have had some such signification. The name of the Fess is derived from the Latin word *fascia*, a band or roller, which the ancients wore as an article of dress, the men applying it round the thighs and legs, and women round their breasts and body. The French call and spell it *fasce*. The Fess is of the same breadth as the Pale, which is generally a third part of the field, and has also its diminutives like the Pale. Some armourists have made a distinct or separate ordinary of the Bar which is a mistake, as it is nothing more than the two lines which constitute the Fess compressed together and therefore ought to be classed amongst the subordinate ordinaries. The Barrulet and the Closet, are diminutives of this ordinary, the first being a fourth of the Bar, as shewn in figure No. 23, *Per Pale, Gules and Azure, three Bars Gemelles Argent.* These Gemelles are Barrulets, whose breadth is half the Closet; this word is French and means female twins. Their undoubted affinity to the Fess justifies our introducing them here as they are subordinaries.

Fig. 24. *Per Pale Argent and Sable, surmounted by a Fess, Wavy, countercharged.*

Fig. 25. *Or, a Pale Sable, surmounted by a Fess Gules.*

Fig. 26. *Purpure, a Fess between two Closets, Argent;* or *Purpure, a Fess Cottised Argent.*

Fig. 27. *Or, two Bars Sable.*

Fig. 28. *Barry of Six, Argent and Gules.*

DIVISIONS OF THE SHIELD.



Fig. 21.—Paly Bendy, Argent and Gules.

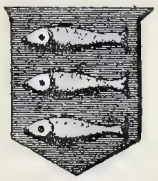


Fig. 22.—Azure, three Salmon in Pale, Or.



Fig. 23.—Per Pale, Gules and Azure, three Bars Gemelles Argent.

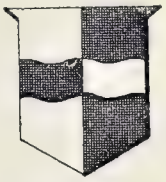


Fig. 24.—Per Pale, Argent and Sable, surmounted by a Fess Wavy.



Fig. 25. Or, a Pale Sable, surmounted by a Fess Gules.



Fig. 26.—Purpure, a Fess between two Closets; or, Purpure a Fess Cottised Argent.



Fig. 27. Or, two Bars Sable



Fig. 28.—Barry of Six, Argent and Gules.



Fig. 29.—Barry of Six, Argent and Gules, Per Bend countercharged.

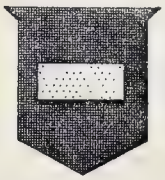


Fig. 30.—Sable, a Fess Humetté Or.



Fig. 31.—Gules, a Battle Axe in Fess Proper.

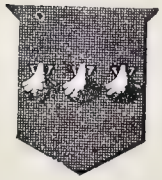


Fig. 32.—Sable, three escallop shells, Fesswaya Argent.

Fig. 29. *Barry of Six, Argent and Gules, Per Bend countercharged.*

Fig. 30. *Sable, a Fess Humette, Or.* This charge, being the Fess *Couped Or* both ends, finds a place here because of the analogy it bears to the ordinary from which it is derived; but its proper place is amongst common charges.

When an object, that has some length in itself, as a sword, a lance, an axe, &c., is placed horizontally on the shield, and when several charges, as escallops, crosses, bezants, &c., are so disposed, *then* position is described by the words *in Fess*, or *Fesswise*, as in

Fig. 31, *Gules, a battle axe in Fess Proper*, and Fig. 32, *Sable, three escalloped shells, Fessways Argent.*

The Cross.

In a series of articles by Lewellyn Jewitt, F.S.A., which appeared in the *Art Journal* some years ago entitled "The Cross in Nature and Art," he says "It is impossible to conceive, in the whole round of one's knowledge, a subject more varied in its aspects, more curious in its ramifications, more general in its occurrence, or more important in its bearings, than that of the cross, whether in Nature—for it is found in the animal, vegetable and mineral kingdoms, and in light and air and water, alike; in art—for it enters into every phase of that art in never-ending variety of forms; in science—for it is produced by natural agency in chemical and other pursuits; in history, whether sacred or profane, in architecture, in heraldry, and in many other studies, and indeed in almost everything on the earth and in its surroundings, the cross, in one form or another, exists, and thus becomes a component part of our every-day life and of our every-day thoughts and aspirations."

As a sacred symbol the Cross represents to our minds our blessed Saviour after being scourged and reviled, led to Mount Calvary, and nailed on the Cross, which ever afterwards became a light to the world, the symbol of faith, of love, and emblematical of Christianity, in all its phases. We see the cross in the scales of fishes, especially the crucian carp, the bream, the minnow, and the eel. In the vegetable kingdom the cross is so common that an order of plants is named *cruciferæ*. The flowers of these plants have four petals which are invariably placed crosswise. Some of the best known flowers of a cruciform shape among English plants are the ladies' smock, all silver white,

"That paints the meadow with delight"—

the mustard, the horse radish, the stock; the penny cress, watercress, and scores of others. And among cultivated flowers, are the passion-flower, and the fuschia, and many others. Among leaves the cross is strikingly present, as in the cross-wort, with its growth of whirls of four leaves round its stem, and the liver-wort with its cruciform leaf. Still further in the vegetable kingdom the cross appears in the pollen, the stamens, and the granular crystals in the tissues of numberless plants, and in parasitic fungi. In various grasses also, elegant cruciform florets are to be found. In the mineral kingdom the cross is found in crystalline and other formations.

That the Cross was used as a symbol long before the Christian era abundant proof is not wanting, among the ancient Egyptians, the Greeks, Indians and other nations and peoples the Cross was in one form or other used from the very earliest times and invariably with some mystic meaning. The use of the Cross as a symbol of life and regeneration through water, is as widely spread over the world as the belief in the Ark of Noah. The cross form is found on Babylonian, Phœnician, and Assyrian remains, and was regarded by them as a sacred sign or symbol of life, restored by rain. Before the time of the Romans, before the Etruscans, there lived a people in the plains of northern Italy who used the Cross as a religious symbol, beneath which they laid their dead to rest. Of this people history knows no more than that they lived in ignorance of the arts of civilisation, and dwelt in villages built on platforms over lakes, and that they trusted in the Cross to guard their loved ones when committed to the dust. In the ruined cities of Central America it has been found, and in Mexico. In India the cross is found in the hands of the god Vishnu and other Indian divinities, and is used as the head of a sceptre by many of the Indian kings.

The use of the Cross in baptism is an early sign of the Christian Church, it was made on the breast in love, on the forehead as a profession, on the arm for work (says St. Ambrose), and in baptism in England on the breast and forehead. We might extend our notice of the Cross to an extent far beyond the limits of our space, the subject being most interesting, and we would refer our readers to the articles above mentioned. It will be seen that the Cross has played a most important part in human history in all ages, under this symbol the greatest benefits have been bestowed upon mankind, and in its name have the greatest iniquities, the foulest murders, and the grossest barbarities been perpetrated. Kings and warriors inscribed it upon their banners, priests and bishops have fought for it, but best of all good men and women too, have carried out the best and purest works of love and mercy, under its influences; no wonder then that it was adopted early as an heraldic blazon. The Crusaders painted it upon their banners, their shields, on the back of their garment, and in every form in which it could be displayed, and thus it became one of the principal ordinaries in heraldry.

(To be continued.)

OUR ILLUSTRATIONS.

TO illustrate our articles upon the inlaying of woods (marquetry) we this month give two double-page examples of designs suitable for that purpose. The one contains two designs,—a fancy table top and a broad and simple panel decoration, and the other a design for panel decoration.

The table top may be either used for a square table or a round one. We have ourselves executed it in the latter form, with good effect, and we have added the heraldic corners to enable it to be used both ways. The choice of woods is a matter of taste and will no doubt be decided by the artist himself, but we would advise that it be treated in the following manner knowing that it will be satisfactory when finished. The whole of the design should be grained of some light wood, maple, satinwood, sycamore, or very light oak, and the set or geometrical parts of the design with the circles should be left of the white wood. (The manner of

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W. Sutherland, Invt.

TABLE TOP IN INLAID WOODS.



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A. A. Sutherland, Delt.

PANEL DECORATION IN INLAID WOODS.

doing this will be found described in our articles on inlaying.) Parts of the vases and the light-grained portion shown inside the geometrical ornament, may be a light bay wood; the fruit, &c., being part satin-wood, and part amboyna; the leaves being grained harewood; a greenish grey tone. The dark ground may be walnut or ebony. The shield in corner may of course be charged with any coat of arms, and by using satin-wood for gold, amboyna or baywood for gules (red), harewood for azure (blue), ebony for sable (black), and so on we may blazon almost any coat of arms with various coloured woods, bearing in mind always that we are not restrained by any rules of propriety, from graining these woods brighter or fuller in colour than the real wood usually appears, just as the real wood is stained any colour required for the purpose of any special design. The centre of table design shows two woods in juxtaposition, having the effect of light and shade. When using this design for a round table, the outer margin should be taken from that portion of the circle which touches the bottom of the shield. There should of course be a thumb mould beyond that to complete the structural features of the table.

The door panel design on the same page shews a broadly treated and simple design in the Tudor or Elizabethan style, well adapted for inlaying, in fact we have a panel we have done years ago of the same design (which will be exhibited at our Prize Scheme Exhibition) in two woods, viz.—light oak and pollard oak, the light oak being inlayed upon the pollard, and worked according as the grain of the wood would be if it were real wood. But the simplest way of doing it would be to grain the whole of the panel oak, and then inlay the pollard oak. Of course the design may be treated in various ways.

Our second double page shows a design for panel decoration, having a slightly conventionalised representation of the ivy leaf and berry, in the border, and the centre, is an example, of the extreme of conventionalism, the *motif* being the geranium. In the border we have a free and flowing treatment, and in the centre a somewhat stiff and quaint style of ornament much used by some designers, but both border and panel are well adapted for inlaying. It will be obvious that such a design is capable of a great variety of treatment. The back-ground of border and centre should be a dark wood—walnut, ebony, or very dark knotted oak. The ornament and vase in centre, should be of two or three light-coloured woods forming a harmonious and distinct contrast with each other so as to emphasise each separate part. The plain spaces between the panel and border, and the lines both inside and outside of panel and border, should be of one light wood. If so done they will unite the whole of the design together. In the border the leaves might be done the one half as shown of the same colour as the stem, and the other half of another wood, sycamore and harewood. If a judicious selection of harmoniously contrasting coloured woods are chosen a very beautiful effect may be obtained, with any of these designs.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 166.)

CHAPTER XVI.—INLAYING OF WOODS.



OUR ground work and design being now prepared for working, we shall proceed to describe the manner of working, and will take as an example a design composed of four different woods, namely, maple, walnut, harewood, and tulip-wood. As the same method is pursued in a design containing a dozen different woods, as in the one containing four, we shall thus get a clear description without risk of confusion.

We will suppose that we are about to decorate the panels of a door with the woods above-mentioned, and that we wish the work to appear when finished as an inlayed design of maple, harewood, and tulip-wood upon walnut. In this case the whole of the panels must be first grained maple, that being the lightest wood, both as to depth of colour and purity of tone, the graining colour being secured in the ordinary way with weak beer or other glutinous medium. We may now proceed either to varnish the whole of the maple, which would then form a ground for graining the other woods upon; or we may trace or pounce the design upon the maple, and pick in or pencil that part of the design which will remain maple in the finish, with a stopping varnish, such as Brunswick black, Canada balsam, or any other quick drying varnish, which may afterwards be dissolved, and removed by turpentine, spirits of wine, or naphtha, the great object being to use a varnish, insoluble in water, and yet capable of being removed without leaving any trace behind, at any time when required, by the use of the aforesaid solvents. Any turpentine varnish may be used if a little sweet oil is added to it so as to prevent it getting too hard, only a sufficient quantity being used to effect that purpose and to let it dry hard enough, so as to enable us to work over it without smearing and leave a sharply cut and clear outline to the ornament. We have found that for most purposes Brunswick black is the best, as with care it will wash off with the turpentine without leaving any stain behind it. Canada balsam has its advantages in use especially for very delicate work, but on the whole we prefer the Brunswick black. We omitted to say that the maple should not be grained very strong when used in this way, or else it interferes with the grain of the other light wood. We

now grain the next lightest wood, namely, the harewood, taking care to cover all those parts which have to remain of that wood, or the panel may be grained all over, which is the safest plan. The design must again be placed upon the panel, and those parts which have to remain harewood, are traced or pounced on and covered with the stopping out varnish as before described. We now grain the tulipwood, trace in as before, and cover with the stopping. We have now the three woods grained and covered with the stopping varnish, these three forming the design. We now grain the walnut to form the ground, into which the other woods will appear to be inlaid. In doing this we rub in and grain the panel all over its surface without regarding the previous graining and make the grain appear as if it were one solid piece of wood. As soon as this is dry, we take a large swan quill or flat tin tool of camel hair, and use turpentine or other spirit according to the nature of the stopping out varnish used, and saturate the whole of the panel with it. When it has had sufficient time to soak through the upper coats of distemper colour and reach the stopping varnish, the spirit will soften it, and by gentle and careful rubbing with the brush the whole of the stopping varnish which covers the various woods, may then be removed by repeated washing with the turps, until the whole design stands out clean, clear, and sharp, all the spaces between the pattern being walnut. By working thus we get all the graining at one level, just as if it were only one wood. We also secure flatness, which is absolutely necessary to the success of the work. Some grainers will grain one wood and then varnish it with ordinary hard-drying varnish, which cannot be removed as described above, and when this is dry they will grain and varnish another wood and so on to the end of the chapter, the result in the finish being that a rough and uneven surface is produced which utterly spoils the appearance of the work, and which no after-labour can remedy. White or semi-white lines, of box or cedar, are often inlaid in the real wood. In the imitation if a white line is wanted, the line must be put in with the pencil and stopping varnish, and we should use the Canada balsam for that purpose, if the ground is white. A white or black outline round the various woods makes an excellent finish to the work. If we want a black outline, the panel must be brushed all over with drop black in distemper, and the outline pounced or traced and put in with Brunswick black, care being taken that the black is only used of a sufficient thickness to form a solid black, which if carefully put on will only require a very thin coat. All the other woods may then be grained and stopped out as above described, the superfluous black being previously removed by washing with water, so that it will not interfere with the colour of the after-graining. If the lines are pencilled clean and sharp with the varnish, they will appear so when the stopping is removed, and of course will add very materially to the beauty of the work when finished.

Sometimes it will be required to inlay dark woods upon a light wood, the latter forming the map or ground work. In these cases it is best to grain the light wood first and give it a coat of varnish. When this is dry and hard we may then proceed with the other woods, just as if it were a plain ground as before described. It will be seen that we have here a method of ornamentation, which when used with skill and good taste, is of great importance as a means of decoration. Twenty different woods may be used on the same design if required with a command of colour quite as extensive as is ever necessary to produce harmonious combinations in any style. The most elaborate as well as the simplest designs may be thus worked out effectively.

(To be continued.)

PICTURE-HANGING.

(ILLUSTRATED.)



IN the wall of the room illustrated in our last month's number, we have placed a number of pictures which affords us an opportunity of giving our subscribers a few hints as to the arrangement and hanging of pictures, which we trust will be of service. The pictures themselves are mere scratches, so far as execution goes, and are merely placed to show, with their frames, the position they ought to occupy. It must be thoroughly understood that we are not describing a picture gallery but an ordinary dwelling room and although in some respects the same conditions apply, yet there will of necessity, be a wide difference between a wall covered entirely with pictures, and that on which a limited number are hung. There is however one position above all others in which pictures are seen to most advantage, and that is, on the line. We often see in reports of Exhibitions of Paintings that such and such a picture is on the line. This being the place of honour, it is the ambition of the artist to have his picture hung there. It is sometimes said that this coveted position is not always given to merit, but is accorded by favour, however that may be, it is no doubt, the best position for a picture to be seen. A picture on the line is hung on a level with the eye of the observer, and as this is the position in which the artist must stand when he painted the picture, we see it from his point of view. It is in fact the sight line, or line of sight. We see it as it is intended to be seen, without any effort or straining of the eye. The lines of perspective whether in landscape or figure are truly focussed. Now if a picture is placed above the line of sight, these conditions are altered somewhat. The head of the observer is thrown back and the eyes are strained, physical discomfort is engendered, and our pleasure decreased. Under the line while not so unfavourable a point of view as above the line, has its disadvantages, apart from the picture

being out of the line of sight, there is the discomfort of stooping, and we are apt to throw our shadow on to them.

In a dwelling room, many of these objections are modified by circumstances, different from a picture gallery. As will be seen in the arrangement on our design the pictures are arranged symetrically so as to produce a sort of uniformity in size and disposition. This arrangement is always pleasing as is all true symmetry. In a small room the eye takes in the whole of the picture at a glance and rests with content upon such a disposition of parts. On the other hand if the pictures are of all sizes and hung without any regard to this principle, they look incongruous and anyhow as if they were not worth the trouble of arranging properly. It is not always that our stock of pictures will be sufficiently near in size to enable us to distribute them so equally as here shown. Still, if they are judiciously arranged, we may do away with the objection in a great measure. If it is engravings alone we have to hang, it is an easy matter to get them in pairs of a uniform size, but with a mixture of oil-paintings and engravings this cannot well be done, but with care and good taste even these may be so arranged that they will not clash with one another.

The practice of hanging pictures so that they shall project forward at their tops is a question of position as to light. When the light falls full upon a picture whether a varnished oil painting or a framed engraving or water-colour, there is a glare or brightness which prevents the whole of the picture from being seen. This is a common case and the only means of avoiding this is to let the picture hang out from the top so that we can see the whole of it from any part of the room without this objectionable light upon its surface. This is effected by placing the rings of the frame low enough down to cause the picture to have the desired inclination. It is a good plan when about hanging a room with pictures to make a sketch of the proposed arrangement previous to commencing hanging. This saves much after-labour and vexation. The largest picture should always have a central position, so that those of a less size and form can be symmetrically grouped around it. The eye will be satisfied by such an arrangement. The character and form of the frames is a very important factor in the question. Engravings and water-colour paintings should always have a broad margin to the mount and a narrow light frame. The margin serves to isolate the painting or engraving and thus enables us to see its beauties to much greater advantage. This is more especially the case if the wall upon which they are hung has a pattern upon it. These frames should be alike in make and breadth as far as possible. Oil paintings require a different and a much heavier frame than water-colours and engravings. The principal object in both cases is to display the painting to the best advantage. The broad margin does this with water-colours, but the oil painting having no plain margin we must depend upon the frame to effect its isolation. In our opinion a great mistake is made in having these frames too elaborately ornamented. It is not the frame we want to exhibit but the picture, therefore anything tending to lead the eye from that, is an error. The frame surrounding an oil painting should be broad and comparatively plain, as we thus separate and confine the picture so that the eye takes in the whole of it, without being confused or interfered with by any external object. In the hanging of pictures there are several points necessary to be attended to in order that they may be safe and easily adjusted. A picture moulding firmly secured to the wall just underneath the cornice or frieze, upon which hooks are made to slide along; not only affords a firm support, but is an addition to the decoration of a room. This moulding may be made and fixed by any ordinary joiner, or may be bought at most of the paper-hanging establishments, in gilt, black, or in various woods in combination with gilt beads. The hooks also may be procured from the same source. Brass rods have been much used for hanging pictures from, but they are not so serviceable or neat-looking as a picture moulding, they are also soon spoiled by the action of the gas and moisture in the room, which eats into and destroys the lacquer. They are now but little used. Strong wire, cord, or line, both "gold" and "silver," are now made, of different thicknesses, for hanging pictures, which is admirably adapted for the purpose being very thin but capable of bearing great weights. All picture cords of whatever kind should be as near the colour of the wall upon which they are put as possible, in order to cause them to be but little seen. Too many cords are always objectionable. It is better to hang the picture with straight cords, that is to loop the cord on to two hooks so that it shall be perpendicular at each side of the picture, and not looped on to a single hook or nail. When one picture is hung beneath another the bottom one should be hung from the one above and not from the top, we thus avoid multiplying the cords, which is always objectionable. Pictures may also be hung without any cords showing by crossing the cord through the rings, at the back of the picture, and looping this into a nail or hook, neither cord or hook will then be seen. When picture mouldings are not fixed, strong nails may be used having earthenware, china, or brass heads to them. These screw on to the head of the nail, so that the nail may be knocked into its place and the head screwed on afterwards. These are very neat and have a good appearance, and always clean up well. Pictures of all kinds should be kept free from dust at the back, for where this accumulates injury is sure to result. To effect this two pieces of cork at the bottom edge of the frame, will keep the frame from the wall,—relieve the pressure,—and allow the dust to a great degree to fall down and be cleared away. Gold frames should never be dusted with anything but a feather brush, and when they become dirty, servants or inexperienced persons should not be allowed to attempt to clean them, as they will be sure to spoil them. In cleaning the glass of water colour paintings, and engravings, the greatest care should be used to avoid rubbing the frames. They never should be wetted with the sponge or leather, or they will soon be spoiled.

MEASURING-UP AND PRICING PAINTING WORK.

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(Continued from page 167.)

CHAPTER III.—WALLS.

20 × 17 × 9·6 = 78⅔ yds. between Cornice and Skirting.

WALLS are measured by taking the tape right round the room and then multiplying the length, by the depth between the skirting and the cornice, and dividing by 9, which gives the superficial area in yards and feet.

Preparation—Stripping.

Stripping a wall is apparently a very simple task to estimate for, but is in many instances much more difficult to fairly price, than it would appear. Some of the old satin papers are most tenacious in their hold of the wall and very difficult to remove. Flock papers again, surpass all others in the way they adhere to the walls; so that care must be exercised in examining (1st) how many papers there are to remove and (2nd) their quality. Ordinary grounded goods are very readily removed. In our suppositious room, there are 78⅔yds. gross, deducting 10⅔yds. for window and door openings we have 68yds. left. The stripping and pointing of the walls will vary from 1d. to 4d. per sq. yard, and be regulated by the papers on, and the amount of repairs to be done.

Our nett wall space being 68 sq. yards, will, if divided by six, give 11 pieces of paper, as the quantity, on the basis of 6 sq. yards to the piece. For lining we might assume that 10 pieces would do it, as there is no waste in the cutting. The price per piece of paper, is of course, a matter between contractor and client, and is easily estimated for when once selected. A very clever and simple means of arriving at the quantities of papers required for a room, is given by Mr. T. C. Stock of Bristol in his "Measuring Card" which we have great pleasure in inserting here; to some of our readers it will not be new, but to a large number it may be novel, and to all it will be found useful, we have worked out rooms on the basis given and found the calculations correct.

Height in Feet, from Skirting to Cornice.	Measure round the Walls in Feet, including Doors, Windows, &c.																								
	28	32	36	40	44	48	52	56	60	64	68	72	76	80	84	88	92	96	100						
7 and 7½ under	1	1	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12							
7½ „ 8	4	4	5	5	6	6	7	8	8	9	9	10	11	11	12	12	13	13							
8 „ 8½	4	5	5	6	6	7	7	8	8	9	9	10	10	11	12	12	13	13	14						
8½ „ 9	4	5	5	6	7	7	8	8	9	9	10	11	11	12	12	13	13	14	14						
9 „ 9½	4	5	6	6	7	7	8	9	9	10	10	11	12	12	13	13	14	15	15						
9½ „ 10	5	5	6	7	7	8	9	9	10	10	11	12	12	13	14	14	15	15	16						
10 „ 10½	5	5	6	7	8	8	9	10	10	11	12	12	13	14	14	15	16	16	17						
10½ „ 11	5	6	7	7	8	9	9	10	11	11	12	13	13	14	15	16	16	17	18						
11 „ 11½	5	6	7	8	8	9	10	10	11	12	13	13	14	15	16	16	17	18	18						

EXPLANATION.—Find the height of the room between the skirting and cornice, in the left hand column, and the nearest figures to the measure round the walls, on the top line; the figures, where the two lines would cross or meet, will show the number of pieces a room will require. Thus, a room not exceeding 60 feet round the walls, and not exceeding 8 feet between the skirting and cornice, will take 8 pieces.

The space occupied by windows and doors must invariably be included as part of the measure round the walls.

If the walls have to be painted, the governing consideration in fixing the price, will be the probable condition they are in when stripped, and the character of the finish it is proposed to give them. If the walls are bad in surface, an extra stout lining paper, about 1s. 3d. per piece, fixed with paste made from half flour and half size, will give a fair surface at the least possible outlay of time and material, and to paint on this five coats including the filling up and rubbing down of the joints, (allowed at 3d. per sq. yard) the work is worth 1s. 6d. per sq. yard, this is exclusive of lining which will mean another 4d. per yard.

Decorating Walls, &c.

It is difficult in the absence of any specific example, to convey our meaning as clearly as we would wish, but we must claim the close attention of our readers in our description. All such work as Borders Friezes and Dados, (when these latter are under 36in. high,) are measured up lineally. Again, all lines run with a fitch, after the stencilling is done, are measured up, separately from the stencilled work, and priced either so much per foot—or dozen feet—for each line, or, so much per foot run, for the given number of lines whatever that may be from ½d. to 1d. per foot run per line is a fair price for lining. We cannot of course lay down any hard and fast rule as to price per foot for stencilling, as the design, the number of colours, the depth of the ornament and many other things go to determine what the price shall be. In measuring-up, any diaper work if the surface stencilled is more than 36in. deep, it is measured and squared into superficial yards. The introduction of any special features in the Frieze or Dado (as figures or animals) is charged for separately and distinctly from the surrounding work.

Woodwork.

Start with the tape on one side of the casing, or architrave, follow the shapes of the mouldings into the quirks, round the beads, across the stiles, over the mouldings, across the panels, then over the mouldings and stile again, and the girth of the architrave is complete which for illustration's sake we will assume is 2·3in., we then measure the two upright sides, and across the top which in an average size architrave will give us 28·0, which × 2·3 = 63 sq. ft. We then measure straight across the sash frame, height and depth, right to the floor, which we will put down at 9·6 × 6·0 = 57ft. If there are shutters, open them out, measure one side and multiply by two thus, 6·0 × 5·6 × 2 = 66ft. Measure the architrave of the door in the same way; an average sized architrave is about 18 × 1·3 = 22·6ft. door, 6·10 × 3·6 = 23·11. Measure always in and out of the quirks and round the mouldings.

Then comes the skirting, which will be about $54 \times 11\text{in.} = 49{\cdot}6$, by adding these figures together it will be seen, that our suppositious room, yields us $31\frac{1}{4}$ sq. yds.; the question of price per yard, immediately resolves itself into a matter of the character of the work. We have known two-coat work, carefully measured, and priced at 4d. per yard, be far too high for the purposes of getting contracts; and yet our room priced out at this value, would only give us 10s. 5d. which is manifestly, insufficient to meet the necessities of the case, and, indeed, is barely sufficient to cover the preparatory process of rubbing down and stopping. For very rough work 7d. per yard would be a fair price but if there is to be any finish given, such as even an ordinary Drawing Room would require, 1s. per yard, will be the lowest price it could be done for, two coats and 1s. 4d. three coats; any quirks run in, or moulding picked out in colour, or any gilding of mouldings is measured up lineally in addition, and the former priced from 3d. per dozen feet, and the latter from 3d. per foot, according to the size of the member.

The preparation, is the uncertain factor, in all work of this kind, and this varies in each job, so that in fixing on a price, experience is the safest guide. The cost may be approximated in another way, thus, suppose we are wishful to make a very good plain job of our room, giving it three coats, we may safely assume, that it will take a man from four to five days to rub down, face up, and paint it three times, this at 10s. a day inclusive of material gives 40s. to 50s. which is equivalent to from 1s. 4d. to 1s. 7d. per square yard; picking out of members and gilding extra.

Decorating.

Door panels if simply stencilled, should be charged for, two large panels at 5s. each, and the two small ones, at 3s. 6d. each, if half shaded, or outlined, or in any way touched with the pencil afterwards, then this must be an additional charge, proportionate to the amount of skiled labour employed. For high-class decoration, it is best to put a lump sum down, for the door which will vary from £5 to £10.

Stencilling round the architraves and skirting is charged for per lineal foot, according to the breadth of the surface stencilled upon, and the character of the design and number of colours used.

(To be continued.)

TRADE INTELLIGENCE.

Messrs. Crowden and Garrod have issued their Catalogue for the new season. Every requisite for a Painter's shop, in the way of tools, is to be found here, and to those who have not yet received one, we would suggest to them, the advisability of sending for one at once.

Mr. A. J. Duff's Pattern Books.—Mr. Duff, of 49, Bread Street, has got together, in his best book, for the present season one of the choicest collections of better-class goods we have yet seen, not a bad paper amongst them, and this is saying a great deal. Mr. Duff has taken up ground of his own, and his collections of better goods is a departure from the stereotyped sort of thing we have had of late years. We would call special attention to some "tapestry papers," to be found in the book, which combine in themselves richness and quietness to a very large degree—two valuable qualities in any wall decoration. One pattern, with an "old gold" ground, and imitation needlework design is a splendid paper for a ladies' boudoir, or for panelling a drawing-room with, while another, on a silver ground, is equally choice, and valuable for decorative purposes where other effects are to be gained. The great recommendation of the collection is to be found in their quiet harmonious colourings. Some very excellent single prints complete the list, and we would strongly commend them to the attention of the Trade. Mr. Duff's book of general patterns will also be found useful in any Painter's shop. The patterns are all carefully selected in view of the trade requirements.

The operation of the Employers' Liability Act, is one of much import to master house-painters. A faulty hinge in a pair of steps, or an unperceived defect in a plank, or one of many of the many contingencies, which are constantly arising, may involve an employer in responsibilities of a magnitude quite disproportionate to the margin of profit which the business allows; and may be fraught with ruin to those of limited means. The master cannot guarantee the carefulness of his men, yet the law, nevertheless, holds him responsible for whatever happens to him or his fellow-workmen, whilst at his work, unless (a very rare chance) the employer can prove absolute carelessness and neglect on the part of the injured workman himself. To meet the necessities of the case, an Insurance Company has been formed having its head offices in Birmingham, whereby for the payment of a very nominal sum, the Company undertakes to meet any liabilities that may arise through accident; thus, for the sake of illustration, suppose that an employer's wages, for the 52 weeks, average £10 per week, or £520 per annum, for the payment of 26s.—or thereabouts—the Company undertakes to pay any claims that may be brought against the master through accident happening to any of the men in his employ (in working hours) during that year. By an arrangement with his men, the master may recoup himself even for this nominal amount, and have the comfort of knowing that this sword of Damocles is not hanging over his head. For further particulars we would refer the reader to the Secretary of the Company, Mr. W. H. Greening, Newhall Street, Birmingham, or to the Manchester Agent, Mr. F. J. Fardon, 96, Deansgate.

A speciality in dusters is announced by Messrs W. Culmer and Sons, Brush Manufacturers. The great drawback to the use of the string bound dusters hitherto has been that after a few months the wood shrinks, and the bristles fall out. This defect has been overcome by the introduction of "the New Short Patent Duster," which is metal-bound, and *guaranteed* not to fall to pieces; not the least recommendation of the new duster is the fact that it is low in price. Further particulars will be found on page V. of our advertising columns. Messrs. Culmer are also introducing a special "Half White Centre Sash Tool," guaranteed to wear equal to the All Lily Brush, but much lower in price. All particulars can be had from the Works by sending for an illustrated price list.

ANSWERS TO CORRESPONDENTS.

M. Brown, Jedburgh, N.B.—With regard to the brown spots on the walls and ceiling of the room you wrote us about some time ago we gave you our opinion as to the cause which produced these spots. Since we wrote you last, we have submitted the case, with the portion of ceiling paper you sent us to Mr. Heywood, F.C.S. (of the firm of Wilkinson, Heywood and Clark, the eminent varnish manufacturers of Caledonian Road, London,) who is an accomplished analytical chemist, for the purpose of analysing them, and who very kindly consented to solve the difficulty for us. We have much pleasure in presenting his report which is as follows: he says, "In reference to your letter of the 3rd inst., in relation to spots upon the ceiling paper, &c., I would at once state that the spots are not in any way due to the cement, plaster, preparation or paper, but solely to the gaseous exhalation in the room itself, or in other words to impurities arising either from

the burning of gas, or to some cause to me unknown which generates sulphuretted hydrogen, the action of which I may thus state, the paper shows under the microscope small nodules of lead, which have not been finely ground, or assimilated with the oil; these give more ready action to the impure gas generated from cause unknown, and produce these spots, which are in reality *spots of sulphide of lead*. This you can easily prove by taking a penknife, and gradually scraping off the brown spots, when you will find the under surface clear and white as it ought to be. The whole might be easily remedied by whitewashing the ceiling again, and I do not think any further reaction will take place." This would not have happened at all if the room had been painted with zinc oxide instead of carbonate of lead. We need hardly say that we fully agree with the above and in fact it is the only cause capable of proof. There must be some extra quantity of sulphuretted hydrogen liberated or generated in the room from some cause or other and it is this that has acted upon the unground lead as stated before.

H. & S., York.—We know of no method to prevent old work cracking or chipping which has been painted white for a long series of years when dark colours are painted upon it, much will depend upon the state of the white. It is a well known fact that dark colour absorbs heat, and that white repels it, and when a dark absorbent colour is put upon white the tendency is always towards cracking and blistering, this is especially the case upon window shutters and linings, and all surfaces exposed to the rays of the sun, or direct artificial heat. We have frequently had to deal with cases of this kind in our experience, and we have found that the cause is independent of us, and if the work has been painted so many times with white lead paint the chances are all against its standing firm when a dark colour is put upon it. The best plan where there is any doubt, is to strip the work, the next best plan is to grind it down with pumice stone and water so as to get rid of the hard glazed surface, when this is broken through the probabilities are that the new paint will unite better with the old and thus avoid both cracking and chipping. Another plan is to break the hard surface by using a solution of sufficient strength to take off the upper crust of paint, and then paint again. We believe that in this hard surface all the danger lies.

Mr. C. F. D., Bingley.—You wish to know the best manner of fastening the double-page illustrations in a bound volume. The plates in the volumes we have had bound are secured in the middle by having a piece of paper or thin cloth gummed upon them at the back having a slip which falls into its place with the ordinary sheets and is so stitched with them, this we think the best way of binding them, but they can be bound up by securing them at one end with the other sheets and then doubling the plate to the required width. Any competent bookbinder will show you the different methods. Backs for binding we supply at 2s. each with gilt letters.

S. W., Leamington.—You will find your question answered to a certain extent in our January number in Answers to Correspondents, and in due course we shall publish extensive instructions for performing both gilding and embossing on glass.

J. B. Larne, N.B.—You ask us to give patterns of graining with the chapters on that art. This we would gladly do but the cost of printing them by chromo-lithography is so great that we should have to charge a price which would be quite beyond the means of many of our subscribers. But if we could publish these patterns, we should still recommend the student to acquire specimens of the real wood as being much superior to any grained examples for teaching purposes, if you will get these and study them having our instructions by you to direct you, you would soon be able to execute any wood. Any large cabinet maker could supply you with them at a light cost.

Carriage Decorator.—We cannot give you the name of any book containing suitable ornaments for decorating carriages or vans. Your best plan as you are young and inexperienced, would be to attend one of the numerous schools of design and learn to draw any ornament you come across that you thought suitable for the purposes of your business. That would be the most beneficial course you could pursue.

J. R. F., Rochdale.—(1) A Subscriber in Huddersfield told us, a friend threw the designs on to white cartridge paper, through the means of a Magic Lantern, to any size he required, and all he had then to do was to trace them on with charcoal or colour. (2.) We presume from your question, that you wish to know how to frost the bottom part of a window and leave the top part plain. Well this is very simply done. If you will cut a piece of paper with a vandyked edge and gum this on to the top part of the window to the line or height you require the frosting to go and let it dry. You may then frost your window up to the paper which can be taken off by wetting when the frosting has got hard, and it will leave a sharp, clean cut edge of the same pattern as the paper. Lines and patterns may be cut in the paper which may be stencilled on to the window by using a boss of flannel to stipple the paint with. Lines may also be done by first stippling the frosting paint upon the glass, then take out the lines with a piece of wood cut square at the end to the exact width of the line wanted. By placing a straight-edge across the bars of the window and running the piece of wood along it a clear sharp cut line may be made of clear glass against the dead frosting. The best frosting paint may be made with Zinc or silicate white, a little linseed oil and a suitable drier. This will keep its colour much longer than whitelead, sugar of lead itself is sometimes used, and also ordinary white paint, rubbed on very bare, but not thin. (3.) Ticket writing ink is called Japan ink and may be got through any large stationers, 6d. per bottle. If any difficulty is experienced in getting it, you may make it, by evaporating some of the water from the best black writing ink, in a moderately heated oven, then adding liquid gum arabic to it to replace the water lost in evaporation. In this way you may make a glossy black ink which will work free and dry with a polish. (4.) The following is a good recipe for stiffening paper for stencil purposes: 3oz. gum sandarac to 1 pint of wood naptha, put in a warm place till dissolved, with this the best lining paper can be made use of for stencils; coat the paper before cutting. Terebine can also be used for the same purpose.

H. C. B., Market Drayton.—We will reply to the first part of your letter next issue. In reference to your other enquiry we have no knowledge of any brushes specially made for the purpose you name, but if you wrote to Mr. J. Hill, 230, Pentonville Road, London, we have no doubt he would meet your wants.

J. R. E., Ashburton, Devon.—Messrs. Crowden and Garrod's "Special Nailed Stock, XX," will answer the description.

E. C., Notting Hill.—Too late, next month.

C. W. R., Kingston-on-Thames.—Next month.

SITUATIONS VACANT AND WANTED.

In order to meet many applications from subscribers, we have opened a Register Book, for employers requiring grainers and decorators, and a corresponding book for grainers and decorators requiring situations. We propose to make this a medium of communication between employer and employed free of cost.

Any master painter, therefore, in want of a grainer or decorator, sending their full name and address, with an additional stamp for reply, to the *Journal of Decorative Art*, head office, 1, St. James's Square, Manchester, will have their name entered into Book A, and will receive in reply a list of applicants for situations whose names are then on the books.

In the same way, decorators and grainers wanting situations will have their names entered in Book B, on sending us their full name and address with an additional stamp for reply.

We hope by these means to confer a benefit on all classes of our subscribers, and make the *Journal of Decorative Art* of increased usefulness to the trade.

We have now on Book B, the names of several applicants, grainers, decorators, foremen. Employers having a vacancy, can have the names sent on free of cost by enclosing a stamped addressed envelope for reply.





W. Sutherland, Invt.

A. A. Sutherland, Delt.

PANEL DECORATIONS.

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] APRIL. [PRICE 7D.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

THE JOURNAL OF DECORATIVE ART PRIZE SCHEME COMPETITION AND EXHIBITION AT THE AGRICULTURAL HALL.

THE first of the above Exhibitions, has come and gone; and we are now in a position to guage to some extent, the measure of success which it has met with. Before passing on to our general notice however, we must acknowledge for ourselves, our competitors, and the painting trade generally (for they are interested) the obligations we are under to the two firms whose names are identified with the scheme, and to the gentleman who adjudicated on the works sent in.

On the first inception of the Prize Scheme, we naturally turned to those whom we thought most likely to help us in the matter. We appealed first to Messrs. Wilkinson, Heywood, and Clark, of Caledonian Road, and afterwards to Messrs. J. B. Orr and Co. (the Silicate Paint Company), Cannon Street, and from both these firms we met with a generous response that was most gratifying and encouraging. Our next anxiety, was, what gentleman could we get to award the prizes, whose name would be a guarantee, not merely of fair play, but of wise and capable judgment. Our thoughts at once reverted to Mr. Crace, and with considerable hesitation we preferred our request. Mr. Crace wrote back signifying his willingness to aid us in our endeavour to promote a better knowledge of Decorative Art amongst the trade, and we were thus enabled to lay before our subscribers and readers a Prize Scheme complete in all its parts, and one too, of which we had no occasion to feel anything but proud.

To the gentlemen who thus helped us we tender our best and sincere thanks, and we trust, nay—feel, assured, that the endeavour though it has not realised our anticipations will not be without its good fruit.

In response to our offers of Prizes we had fifty-four entries under the whole of the sections, divided as follows.

Section	I.	Class	A.	entered	18	Sent in	10
,,	I.	,,	B.	,,	2	,, ,,	1
,,	I.	,,	C.	,,	5	,, ,,	2
,,	II.	,,	D.	,,	11	,, ,,	7
,,	II.	,,	E.	,,	3	,, ,,	3
,,	II.	,,	F.	,,	5	,, ,,	4
,,	III.	,,		,,	10	,, ,,	8
					54		35

It will thus be seen that nineteen competitors who entered their names failed to send in their work.

This we cannot regard as in any way satisfactory, we know that in one or two instances, the causes operating were unavoidable; and we regret this equally with the intending competitors, but with a large number of the defaulters, we think the non-fulfillment of their engagements, arose from lack of enthusiasm, indifference, or dread of failure.

Mr. Crace's expressed opinion was, "that considering the handsome prizes offered, we ought to have had a better show" an opinion we entirely endorse; however, we have the solacing thought that the loss is not ours; it is those who shrank from the necessary effort and work.

Apart altogether from prizes, there is a healthy discipline about work and honest effort, that carries with it its own reward, and pleasant as it is to win the prize, sometimes our greatest cause for thankfulness may lie in our failures.

"I hold it true with him who sings,
That men may rise on stepping stones of their dead selves,
To higher things."

And side by side with the pleasure experienced when we see a man putting forth his best powers for love of his work, is the pity with which we regard the men who measure up their effort by a scale of so much per hour; these men never accomplish anything great, they are laggards in the race from the start, and laggards to the end.

It is the men who love their work for its own sake, and for the pleasure it brings with it, who are most certain, to be the best craftsmen and to excel in their art.

Our Prize Scheme embraced the three great divisions of the House Painting Trade, viz:—

1. Original Design and Execution.
2. Graining and Marbling.
3. The Most Important Manipulative Processes.

LIST OF PRIZES.

SECTION I.

The Wilkinson, Heywood, and Clark Prize, value £35.

CLASS A.

For the best designed and executed original decoration for dining-room door panels, frieze, and dado. Size of door panels, 42 in. by 14 in., and 21 in. by 14 in.; size of frieze, 48 in. by 16 in.; size of dado, 48 in. by 36 in.

First Prize	£10	0	0
Second Prize	7	0	0
Third Prize	4	0	0
Fourth Prize	2	10	0

CLASS B.

For the best (set of three) hand-polished enamelled panels, in light tints. Size of panels, 30 in. by 18 in.

First Prize	£3	0	0
Second Prize	1	15	0
Third Prize	1	0	0

CLASS C.

For the best (set of three) hand-polished varnished panels, in dark colours.

First Prize	£3	0	0
Second Prize	1	15	0
Third Prize	1	0	0

SECTION II.

The J. B. Orr and Co.'s "Charlton" Prize, value £35.

CLASS D.

For the best designed and executed original decoration for drawing-room door panels, executed in "Charlton White." Size of panels, 42 in. by 14 in. and 21 in. by 14 in.

First Prize	£8	0	0
Second Prize	5	0	0

CLASS E.

For the best designed and executed original decoration in "Duresco," on cartridge paper, for a reredos. Size of decoration, 60 in. by 40 in.

First Prize	£8	10	0
Second Prize	4	10	0

CLASS F.

For the best set of six panels, marbled in imitation of the following marbles:—Sienna, Verd-antique, Italian Pink, Rouge Roi, Black and Gold, and Dove. All to be varnished. Size of panels, 36 in. by 28 in.

First Prize	£5	0	0
Second Prize	2	15	0
Third Prize	1	5	0

SECTION III.

Special Prize, value £10.

For the best set of six panels, grained in imitation of Oak, Maple, Pollard Oak, Walnut, Mahogany, and Hungarian Ash. All to be varnished. Size of panels, 36 in. by 18 in.

First Prize	£5	10	0
Second Prize	3	0	0
Third Prize	1	10	0

The works sent in were grouped together under their different sections in the west gallery of the hall. Those sent in under section I., class A., were, speaking generally, of a very high class; those in section II., class D., were also of a good character; but in class E., with the exception of Mr. Pearce's design, there was no realization of what the design ought to be.

Two of the sets of marbling sent in were of a superior class; but the graining panels, past Mr. Marks's, were not equal to what we expected.

THE EXHIBITION.

The office of critic, is not a pleasant one to fill, it is, apparently, a very easy function to discharge; it is actually as difficult a one to do justice to, as we know. The critic, must of necessity work largely in the dark, especially in such a case as the one now under consideration. He only sees results, the process by which those results have been obtained (which is after all the only true basis for founding a correct judgment upon) he is entirely ignorant of.

This rough and ready mode of forming and pronouncing judgment upon the works of our fellow-men, is but a condition of our general life, and we must perforce accept it and make the best of it.

Our aim in criticising the works on exhibition, in the *Journal of Decorative Art* Competition, will be to speak candidly, impartially, and strictly on the merits of the works themselves.

THE WILKINSON, HEYWOOD, & CLARK PRIZES.

SECTION I. CLASS A.

Motto, *N.B.*—FOURTH PRIZE, £2 10s.—A design which it would be difficult to allocate to any particular school. We can best describe it by the word "Cosmopolitan," its leading features or key note tending towards the Renaissance.

The design for the door panel was a free arabesque treatment, with the figure of Music introduced in a medallion at the base, and an Olympian chariot and horses in a small tablet towards the top of the panel.

The dado design was divided into three panels, one large centre one, and two small ones at the side, filled with a design of two Griffins supporting an oval medallion of a vase and fruit, enclosed by a gracefully disposed arrangement of the laurel leaf, and finished with a vase and winged flame. The two side panels, were occupied with a design of palm leaves springing from a vase.

Underneath the panels was a broad band about nine inches deep, bordered on each side with a narrow dot border. The band was divided to correspond with the lines of the panels. Two circular panels occupied with cornucopias, holding fruit, were placed underneath the two side panels in the dado, and the centre panel had a stiffly-drawn festoon. The general tone of the decoration was most successful.

The frieze was struck in a lighter key, but one equally happy in point of colour. It was divided into three panels, a large centre one and two small side ones. The centre panel was filled with a medallion containing a woman's head, in low relief—well drawn and shaded in tones of light brown on a red ground; this was supported on each side with Griffins and conventional ornaments. The two side panels were occupied by a design, half naturalistic and half conventional, but well and freely drawn and admirably coloured.

No. 2. Motto, *Quod potui perfeci.*—A Renaissance design in gold on a green ground, outlined with black. These simple colours are always effective and pleasing if the ground colour is well managed. In the exhibit now described, the ground colour was the same in panels frieze and dado. The effect would have been much better if the dado had been a deeper shade, keeping the panels and frieze the same. The designs for both dado and frieze were boldly drawn and well distributed, but were too large for a dining-room in a private house, unless it was a very large and lofty one. The panels for the door, carried out in the same style, were very carefully executed, though there was a little inconsistency in some of the ornament.

No. 3. Motto, *Rechab.*—First Prize, £10.—A set of designs displaying a great deal of thought and careful work, in both these qualities being unsurpassed by anything exhibited: the style, a flat conventional treatment pertaining to the class of ornament Dr. Dresser has identified with his name. The frieze was filled in with intersecting oblique lines, broken by pateras; bounding this at the top was a band containing portion of an inscription, of which we give the full verse:—

> We live in deeds, not years; in thoughts, not breaths;
> In feelings, not in figures on a dial;
> We should count time by heart throbs; he most lives
> Who thinks most, feels the noblest, acts the best.

while on the bottom side of the diapering, were two bands; a broad one and a narrow one, divided with black lines; on the broad band were birds, flying in regular succession. Breaking up the continuity of the diapering on the frieze was a well disposed arrangement of leaf stem and berry, flanked by two owls very stiffly rendered, stiff, we mean, in the sense of being away from naturalism, not defective in drawing. The whole of the work except the diapering being outlined with a fine black line. The dado was very carefully thought out, the space was broken up into three divisions, the smaller one being in the centre. The two side divisions were filled in with two vases the top of one being surmounted with a ram's head and pheasants, and the top of the other being filled with fruit; both panels being bordered with a design having the filbert nut and leaf for its motif. The centre division was divided horizontally into three spaces, the larger and middle one being covered with an arrangement of fishes symmetrically disposed. The whole was bordered with a six inch border broken up with circles in which two hares were exchanging compliments across the walnuts and wine. The colouring was cheerful, and quiet, and left nothing to be desired. The door panels were equally good, the filbert border on the dado being carried round them, and the centre of the panel being filled in with an ornament egg-shaped in form containing a peacock with his feathers expanded, and supporting a centre stem and vase from which sprang a graceful sprig of currant leaf and fruit, and wheat ears. The lower panel was an arrangement in keeping, only fish and seaweed were here represented. From the foregoing description, inadequate as it must of necessity be, the reader will see the amount of thought expended on the production of the designs in question.

No. 4. Motto, *I strive.*—Third Prize, £4.—No. 4 design differs from its predecessor in every respect.

The Artist had not set before him any specific *motif* to illustrate, and sought only to produce a pleasing effect, an end which he certainly achieved.

The frieze was divided into two spaces, the upper one being deeper than the lower one; both were finished with a band on the outside edges.

In the lower of the two spaces were cherubs, and from them went a festoon of leaves which united at a centre made of the same leaves.

Above, on the broad band, were sections of circles which radiated from a point equi-distant between the heads and the leaf-centres.

The spandrils which these made were filled with a conventional flower and leaf.

*

The dado was divided into four equal spaces, separated from each other by vertical bands, filled in with a leaf border, which was continued round the base, the border to the dado being divided into spaces corresponding to the lower divisions, and, over the centre of each narrow vertical band, circles interlaced with the lines, containing a conventional leaf arrangement, the circles being connected together with a similar band to the one dividing the dado panels.

The panels themselves were elongated with pointed ends (the intervening space to the square border, being diapered) and filled with a vase containing a rose and leaf flatly treated, the whole dado and frieze being treated in quiet low-toned colours, extremely pleasant to dwell upon, and harmonious in their arrangement. The door panels to this design were a rendering of the hazel-nut (treated conventionally) with a circular centre, containing a vase, holding wheat, and the hazel-nut and leaf, the bottom panel was carried out in the same spirit and were worthy companions to the dado and frieze.

No. 5. Motto, *Spero.*—Second Prize, £7.—This was a total contrast to any of its predecessors. The frieze consisted of a very free rendering of open conventional ornament Japanese in feeling, with birds flying about on it, the birds being very well painted. We felt that a little incongruity existed, between the naturally painted birds and the stiff conventional treatment of the ornament.

The dado was one long horizontal panel, and a narrow vertical one, completed with border top and bottom. The large panel was filled with a design of a vase, from which sprang a rendering of the lemon fruit and foliage. The small panel was covered with a kind of ivy leaf, and a conventional flower. The two borders to this design were not equal in value to the panel or of sufficient importance, the bottom one being especially feeble, and the top one a little too fussy. The door panels were undoubtedly cleverly done, but suffered considerably from the busy nature of the ground. The designs were painted on plain oak panels but in addition, the ground spaces were pencilled in with fine irregular lines, which made the general effect somewhat busy, and destroyed the repose that would have existed had the ground been painted in a low tone of blue, for instance. The ornament consisted of the oak stem, leaf, and acorn, and the elder leaf and berries. Squirrels and birds were distributed amongst the foliage. The bottom panels were filled with apple blossom and fruit, with birds in the midst.

The excellence of this exhibit was in the clever drawing and painting of the birds and squirrels, and the plant forms. The colouring of the dado and frieze lacked warmth and harmony; otherwise the exhibit was very good indeed.

No. 6. Motto, *Vigilance.*—This design was, if we mistake not, executed in "Charlton White," and the whole of the work done with stencilling, the dado, consisted of a centre panel surrounded by a broad band seven or eight inches wide, which was broken up into six divisions and on which were plain stencilled ornaments. The centre panel was filled with

a low flat vase holding a design of the pear fruit and leaf. The effect of this panel which was done in graduated stencilling was excellent, but was not sufficiently supported by the style work there being too great a contrast between the two.

The dado border, and two narrow vertical panels which bounded the dado, were also excellently done, but they suffered from isolation caused by the strong contrasts of the dark style color.

The door panels were more successful in point of colour, but we should be inclined to question the expediency of decorating a room; dado, frieze, and panels, in the same pronounced style, it is so emphatic in its utterance that it requires very judicious handling or a "surfeit" is the result.

No. 7 Motto, *E. A. C.*—This exhibit suffered from there being too much work in it, a judicious weeding of half the ornament would have contributed to a much more successful result, it was well coloured, but open to grave criticism in point of drawing. The panels were the best part of the exhibit. Bronze paint had also been used instead of gold, very short-sighted policy this.

No. 8. Motto, *A. C.*—Stood quite by itself and possessed considerable merit. The frieze was a bold natural rendering of the vine plant and fruit, very well painted. The dado was an easy arrangement of flowers geraniums and fuschias, very well painted indeed, but not suitable for a dining-room; a very fine black outline round all the work, would have helped to reduce the bare naturalism and added much to its value as a greater part of it was lost there being too close an affinity between the ground and the leaf colour. The door panels were simple and unpretentious.

No. 9. Motto, *Ecce Signum.*—Certificate.—Another exhibit, singular to itself. The frieze being a purely ornamental arrangement of leaf, line, and flower; most gracefully disposed and well distributed. The dado was a set geometrical pattern, with gullioche border, all outlined with gold, while the door panels were in consonance with dado and frieze. In point of careful executant work, these panels were not excelled by anything shown. We shall publish this set in the May number of our journal.

No. 10. Motto, *W. M. B.*—A design very archaic in its character, the door panels want denuding of a great deal of the ornament on them and making simpler.

Section I., Class B.

Prizes, £3, £1 15s., £1.

We were much disappointed by the response to the offers of prizes in this section, we hoped to have stirred up a feeling of emulation amongst the workmen themselves, but failed to do so, the work sent in was not as good as it ought to have been, but this we think arose from it being done in haste. Mr. Crace only awarded the second prize in this Section and none in Section I Class C.

The J. B. Orr & Co.'s Charlton Prize.

Section II., Class D.

Under this section, we had seven sets of designs sent in—a limited number but one or two of the decorations were very good.

No. 1. Motto, *Spero Meliora.*—First Prize, £8.—A design in the light Italian character, very simple, but carefully executed, there was an octagonal centre on which a lyre, encircled with leaves, was painted in low relief, at top and bottom of the panels were little tablets, on which were painted allegorical subjects. The whole were connected together by lines of gold and a neat arrangement of the honeysuckle, all in very good quiet taste.

No. 2. Motto, *Cive.*—A design consisting of lines of gold and a narrow gold border enclosing an oval form in the centre, on which was painted—very indifferently—a red rose. The lines and border were not neat and sharply executed, and lacked finish.

No. 3. Motto, *N.B.*—A design, arabesque in character, well drawn but a little hard and cold in colour, an effect which was heightened by the black outline, with which it was surrounded.

No. 4. Motto, *Tout ou rien.*—Certificate.—A design of simple pure ornament well disposed, not too much of it,—and very pleasantly coloured, it consisted of a centre medallion, gold ground, on which a winged boy, riding a lion, was painted, the ornament, springing from the centre, top and bottom alike, was very effective and pleasing.

No. 5. Motto, *Ars longa, vita brevis.*—Second Prize, £5.—Groundwork cream colour, subject, an arrangement of the rhododendron plant gracefully drawn and excellently painted, but a little too large for door panels, more fitted for a position a little further from the eye than the panels of a door, nevertheless, very meritorious.

No. 6. Motto, *C. K. S.*—A naturalistic treatment of a long vista of water, from which sprang a few rushes and grasses in the immediate foreground; two swallows flying across the space completed the picture—this is very pretty and pleasing to some people, but however cleverly painted it may be it is not real decoration.

No. 7. Motto, *Diligence.*—A stencilled decoration with the laburnum plant as its *motif*, the design springing from the bottom panel and being continued underneath the stile of the door to the two top panels (a plan open to grave question). On the bottom panels, in addition to the stems and leaves of the laburnum tree, were lilies, and one or two other flowers springing from the water. This method of stencilled decoration is undoubtedly clever and effective, but it requires very careful handling, or it becomes wearisome.

Section II. Class E.

In this section, we must confess to severe disappointment as notwithstanding that the sum of £8 10s. and £4 10s. was offered, in two prizes, only three, entered for the competition. This may arise from the fact, that the work had to be done in "Duresco" and to some this might appear as a difficulty, though in reality it should not be so as "Duresco" is as easy to work as any medium we know of, this we have repeatedly emphasised. Out of the three designs sent in two, were ruled entirely out of court by the character of their design, which was as far as possible removed from what a reredos design should be. The third design, motto, *Color*, by Mr. W. J. Pearce, was awarded the second



"POETRY."

A. A. Sutherland, Delt.

DECORATIVE FIGURE, Original Design by W. G. Bailey.

prize and possessed real merit both as regards the design and the colouring, though this last would have been much better had the blue been toned down more. The reredos was divided into three equal parts, the centre panel separated from the others by vertical bands about four inches broad. The centre panel was filled with a vesica containing the sacred monogram "I.H.S.," the corner spaces, made by the form of the vesica against the square panel, being occupied by a good arrangement of the vine leaf and fruit. The two side panels were done in imitation of a curtain, the folds being indicated by very stiff lines. These curtains were diapered and bordered, and on the centre of each were quatrefoils painted, having the Greek letters "A. Ω." painted on in gold, and outlined with black. The border at the top was formed by three interlaced panels containing the words "Holy, Holy, Holy." The border at the bottom, was formed by a broad band on which were two vases, placed just underneath the vertical bands separating the panels. From these vases sprang wheat stalks and ears up the divisional bands, and behind the vases at the foot was a running design of the passion flower and leaf. The whole had an excellent effect.

LIST OF PRIZE WINNERS.

The Wilkinson, Heywood, & Clark Prizes.

Section I., Class A.

First Prize, value £10—Ernest W. Beech, Lincoln Road, Peterborough. Second Prize, value £7—Richard Glazier, 19, King's Road, Rochdale. Third Prize, value £4 10s.—George Goff, 14, Park Street, Nottingham. Fourth Prize, value £2 10s.—Arthur Boothway, 6, Bond Street, Leeds.

Section I., Class B.

Second Prize only awarded, value £1 15s.—R. H. Hartley, 28, Blake Street, York.

The J. B. Orr & Co.'s Charlton Prizes.

Section II., Class D.

First Prize, value £8—Arthur Church, Lillington Street, London, S.W. Second Prize, value £5.—A. E. Hartley, 28, Blake Street, York.

Section II., Class E.

First Prize not awarded. Second Prize, value £4 10s.—W. J. Pearce, 8, Clyde Terrace, Forest Hill.

Section II., Class F.

First Prize, value £5 10s.—Henry Barclay, Gainsford Street, London, N. Second Prize, value G. Croker, 3, Remington Street, City Road, London. Third Prize, value £1 5s.—Samuel Smith, Malvern Road, Dalston, E.

Special Prize.

First Prize, value £5—John Marks, 45, Upton Street, Belfast. Second Prize, value £3—Henry Bridger, 27, Treborth Street, Liverpool. Third Prize, value £1. 10s.—Henry Barclay, Gainsford Street, London, N.

The notice of Marbling and Graining Specimens sent in, will be given in our next number.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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Chapter XVII.—Decorative Processes.

IN the using of stencils there are two methods of working which we may notice with advantage, the one by dabbing with the end of the brush, and the other by rubbing with the brush. The first method of dabbing the colour into the interstices of the pattern with the end of the brush, leaves the colour thus deposited granulated or rough in surface, while the second method leaves the colour smooth, or comparatively so. This roughness is not a matter of much consequence when used upon walls or ceilings, but is objectionable upon woodwork, therefore in the latter case rubbing should be used where practicable, but as will be seen further on roughness is a desideratum in some cases.

In mixing the paint for stencilling care must be taken to have it of a medium thickness, neither too thick nor too thin; if it is too thin it is apt to run under the edges of the stencil, and leaves the colour shady, not solid or uniform in tone; and ragged at the edges. On the other hand, if the colour be used too thick, it clogs and gathers on the stencil, and on the brush, and does not make good work. If the stencilling be done on flat or dead colour, it should always have one-eighth part of oil added to the flat stencil colour, this causes the colour to work easier and better, and also binds it. When the colour in use has plenty of white lead in it, it does not require so much oil, as the oil in which the lead is ground, secures it to some extent. But all dry colours such as ultramarine blue, vermillion, &c., which mix without grinding, will require (when not mixed with white lead) to be bound with either oil, liquid dryers, varnish, or japanner's gold size. We do not advise the use of quick drying colours in stencilling when it can be avoided, because they set and dry so quickly, that the sharpness of the stencil pattern is soon destroyed and clogged with colour; and requires cleaning so often, that it wears out directly and becomes useless. The time lost in cleaning it so often, is also an important consideration, as time spent upon work which may be avoided by proper management, is time wasted and utterly lost. There are cases of course where quick drying colours must be used, but it is better to avoid them if possible. On distemper grounds we have found in practice that we can make better and sharper work by using spirit colour of a quick drying nature than if we used distemper upon distemper. The spirit colour when mixed with tolerably quick drying varnish, produces sharp and solid work, and

there is not that liability to run or spread, as the distemper colour absorbs the stencil colour, which being quick drying, there is not time for it to spread and form a stain beyond the actual stencil pattern, as oil colour does when placed upon distemper. In stencilling distemper colours upon distemper, the ground colours require to be well bound, in order to prevent the stencilled pattern from working up the ground and thus making shady work. Milk is a good medium for mixing distemper colours for using on distemper it works freely and well, but soon goes putrid—a little carbolic acid added to it will prevent its going bad. Some colours will work well with common beer alone. Burnt, and raw sienna, and all colours which are not of a spongy nature, require but little gluten or animal size, to bind them, they having a binding power in themselves, while ultramarine blue, and like pigments require the size to be used pretty freely. Oil paint upon flat colour stencils sharp and clear, so does flat colour upon the oil paint, but as most stencilling is done upon flat colour, the stencil colour should not be entirely flat, but should have a little oil mixed with it, not sufficient to make it glossy as that would be objectionable, but just enough to cause the colour to work freely; if this is properly mixed it will not clog or gather on the stencil, and thus twice as much and better work may be done, than if the colour was stiff and dry. In all cases when using a stencil pattern, it should be kept, as flat and close to the ground, whatever that is—as possible, for if the stencil is not so kept the dabbing with the brush soon injures it; and no good work can result. In using the stencil brush to brush in the colour instead of dabbing, very little colour must be used, indeed whether brushing or dabbing if we have too much colour in the brush it will be sure to make bad work. In brushing the colour on to the work the stencil must be kept very close to the surface and the stencil brush must be pressed hard against the stencil in order to keep it close, and the brush moved with a sort of circular motion, and with very little colour in it. In using it in this way we are less liable to curl up the edges, sharp points, or angles of the pattern. A sliding motion of the brush is useful, especially in large patterns, in which the brush may be moved over the edge of the pattern and not against it, but this cannot be done in stencilling with a small and intricate pattern, the circular motion in this case being the best. By this method we get a clearly defined sharp outline, and a comparatively smooth surface.

In stencilling two or more colours with one stencil pattern, especially when the two colours are close together, with but little plain spaces between them; one colour should be first stencilled, and when stencilling the second colour, that previously done must be covered with a piece of paper cut to the shape or nearly so of the space to be coloured. Sometimes two or three of these pieces of paper must be used in order to cover up all sides of that portion of the pattern previously done in the first colour, to prevent the second colour from impinging upon those parts of the first colour next to it. These papers may be held in their place by one hand while the other colour is being done. But if the wall space to be stencilled is large, or the pattern is too intricate, it will be best to cut a stencil for each colour and put them in separately. Whenever this is done a guiding dot or mark should be cut in each stencil as a certain means of ensuring that each colour shall fit into the space in the pattern specially allotted to it, except this is done failure is sure to result. In this way and with proper safeguards, any number of colours may be stencilled with all the beauty and exactness of a printed pattern.

In working with stencil patterns, it is necessary in almost all cases, to fasten the stencil to the surface to be stencilled. Sometimes this work is done without its being fastened, such as when the stencil is very small and can be held tight to the work with one hand and the stencilling done with the other. Then again there are cases where the stencil being a large one it is held in its place by two or more persons while the colours are stencilled in; but these are exceptional cases. In fastening the stencil upon walls and ceilings while in use, we use needle points, that is needles without eyes, such as are used for fixing gold moulding upon walls. Some persons use drawing pins, and common tacks, but as all these have to be pushed or knocked into the body of the plaster or wood, in order to hold the stencil, it will be evident that the larger these are the larger hole they will make in the plaster, in fact when tacks are used, the plaster often breaks away, and leaves an unsightly hole. We have found it best always to use fine needle points. These may be fixed into bits of wood for handles, which makes them very handy for use. They should be about $1\frac{1}{2}$ inches long, square sided, and cut taper to the end where the needle is fixed. Or the needles may be pushed into the plaster or wood by means of a hollow handled key. The blunt end of the needle is dropped into the hollow of the key with the sharp point projecting beyond the mouth of it and is then pressed through the stencil into the plaster; they need not be pushed in far, but only just far enough to secure the stencil and not to injure the plaster. A store of needles may be kept handy for use by pushing them into the workman's slop or jacket, so that they will be easy to lay hold of and put into the key, and when taking them away from the stencil, they may be quickly put back in the jacket, when they will be ready for the next shift. If care is exercised in the use of the needle points the perforations made in the plaster will not be seen when the work is finished.

We have now to speak of the different kinds of work that may be done with stencils and the effects that may be produced by their aid. Very beautiful work may be done by using graduated tints of colour, either by one, two, or three separate stencils, producing the effect of painted arabesques, and this effect we may see in all its glorious beauty, in nature. The common bracken fern in its decay, very often assumes a beauty of colour, we have never seen equalled by any painter. We have repeatedly seen thousands of them exhibiting in each single frond gradations of colour, from bright yellow at the tip down through all the varied tones of orange, scarlet, reds, greys, greens, browns, and purples. A beautiful sight worth going many miles to see. We also in autumn see leaves of trees and succulent

plants, assume these beautiful tints. In painting leaves, flowers, or ornaments, in graduated tints, by means of stencil plates we proceed as follows:—If only one stencil is used the pattern must of necessity be large so as to allow of the graduation. We will suppose that it is a Fern design we are doing, and that we wish to use three tints of colour on one frond, we would stencil in the top part of the leaf or frond with a tint of yellow made with Naples yellow having a little vermillion or other bright red mixed with it, just sufficient to mellow and modify the yellow a little. We should next use a tone of pink which we should put on close to the previous yellow, then a third colour of a neutral green tone, putting this close against the pink on the same leaf or frond, the stalks and stems may be put in of a shade of red made from Indian red and white. When the various colours are put in their proper places we take a clean stencil brush and dab over the part where the yellow and pink join, blending the one into the other, and with another clean brush do the same with the pink and green; if this is properly and carefully done we shall blend or soften the colours into each other and thus produce a very beautiful effect. The same brushes may be used for blending the colours throughout the whole of the work, but must be kept clean and free from colour by rubbing them upon dry clean cloths as often as they may require it. If this is not done the blending will be dirty and muddy.

(To be continued.)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

Continued from page 172.

CHAPTER XV.

THE CROSS.

THIS bearing consists of two perpendicular lines, meeting two horizontal lines in the Fess point, so as to make four right angles, the lines not being drawn throughout, but discontinued at the breadth of the ordinary, which is generally the fifth part of the shield, if plain, but more if it is charged. It may be differenced as the Pale and Fess are, by its outlines being characterised, according to the lines of division, and consequently may be blazoned, engrailed, inverted, wavey, &c., &c. When plain it is simply termed a Cross as in Fig 33, Ermine, a Cross Gules, and in Fig. 34, Quarterly, Argent and Gules, a Cross engrailed, countercharged.

The Cross has no diminution unless we admit as such the Cross voided, as in Fig. 35, or, a Cross voided Sable. Many common charges draw their origin from this ordinary. When charges are disposed in the shape of a Cross in the escutcheon, the word crossways is used, to signify their position, as in Fig. 36, Gules, five Bezants crossways, Or, Armorists use indifferently Fessways, Bendways, and in Fess, in Bend, &c.

THE BEND.

Two diagonal equi-distant lines, drawn from the dexter chief of the shield, to the sinister base, containing the fifth, or third part of the shield according to circumstances of being or not being charged, constitute this ordinary. The Bend has several diminutives, namely, the Garter, the Cost, or Cottice, and the Riband. Authors disagree, on the subject of subordinates but we may observe that the Bendlet, the Riband, and the Garter, are smaller than the Bend, and the Cottice is still smaller than any of the others, and this may not receive any charges. The examples here alluded to are shown in the following figures: Fig. 37, Ermine, a Bend Azure; Fig. 38, Azure, a Bend engrailed, cotticed Argent; Fig. 39, Gules, a Fess Or, surmounted by a Bend Argent; Fig. 40, Per Pale, Argent and Sable, a Bend engrailed, countercharged; Fig. 41, Or, two Bendlets Gules; Fig. 42, Bendy of six, Argent and Azure; Fig. 43, Sable, three cross crosslets, bendways, Argent. By some heraldic writers the Bend Sinister is recorded a separate ordinary, entirely distinct from the Bend, but as it is of the same form and breadth and differs only by its position in the field, we place it under the same head. It is subdivided into a Scarpe, from the French word *écharpe*, a scarf, which is half, and a Baton, which is the fourth part of the Bend; but as this half does not extend itself to the sides of the shield, we place it among the common charges. We have before observed, that to these bearings, and to the Baton in particular, devolve in many circumstances, among English armorists, the necessity of stamping the badge of illegitimacy on their owners, Fig. 44, Or, a Bend Sinister, Azure.

THE SALTIRE.

The meeting of the dexter and sinister Bends in the centre point of the escutcheon, produces the Saltire, or Saultier, as at Fig. 45, Gules, a Saltire Argent. Its name is evidently derived from the French, and its origin may be traced in *Sauitoir, or Sautoir, Saltare*, to jump over, as if to express that one of these Bends jumps over the other, as the belts of some of our old regiments crossed on the breasts of the soldier of those days.

Fig. 46, Per Pale, Or and Sable, a Saltire engrailed, countercharged, and in Fig. 47, Per Saltire, Argent and Gules, a Saltire countercharged.

A Saltire is called Humette, when the ends are lopped off, giving to the figure the appearance of standing isolated on the ground. This is a common charge but does not claim a place here, but by right of analogy with the ordinary of the same nature, as in Fig. 38, Azure, a Saltire Humette, Or.

(To be continued.)

IN consequence of the pressure on our space owing to the Decorative Art Exhibition Report, we have been compelled to defer till next issue the chapters on Measuring-up and Pricing, and Owen Jones and his Contemporaries.

DIVISIONS OF THE SHIELD.

THE CROSS.



FIG. 33.—Ermine, a Cross, Gules.

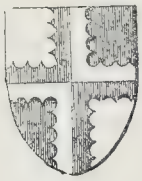


FIG. 34.—Quarterly, Argent and Gules, a Cross engrailed, countercharged.

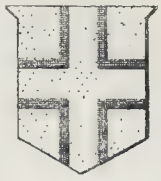


FIG. 35.—Or, a Cross voided Sable.

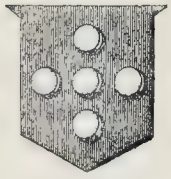


FIG. 36.—Gules, five Bezants crosswise, Or.

THE BEND.



FIG. 37.—Ermine, a Bend Azure.



FIG. 38.—Azure, a Bend engrailed cottised Argent.



FIG. 39.—Gules, a Fess Or, surmounted by a Bend Argent.

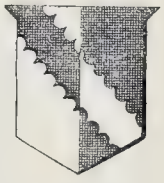


FIG. 40.—Per Pale, Argent and Sable, a Bend engrailed countercharged.



FIG. 41.—Or, twin Bendlets, Gules.



FIG. 42.—Bendy of six, Argent and Azure.



FIG. 43.—Sable, three Cross Crosslets bendways, Argent.



FIG. 44.—On a Bend Sinister

THE SALTIRE.



FIG. 45.—Gules, a Saltire Argent



FIG. 46.—Per Pale, Or and Sable, a Saltire, engrailed, countercharged.

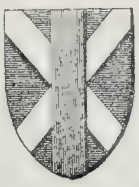


FIG. 47.—Per Saltire, Argent and Gules, a Saltire, countercharged.



FIG. 48.—Azure, a Saltire Humette, Or.



W. G. Sutherland, Invt. FRIEZE DECORATIONS A. A. Sutherland, Delt.

THE THIRD ANNUAL BUILDING EXHIBITION.

FIRST NOTICE.

THE third Annual Building Exhibition may be regarded as being as great an advance on the Second, as the Second was on the first. Year by year these Special Exhibitions are coming to be looked upon as necessary for the full information of the Trade, and those connected with it. This year every available foot of ground downstairs was occupied, and a considerable part of the gallery floor also; and we may naturally look for the whole wall and floor surfaces being taken up in the next year's display.

The value of such Exhibitions cannot well be over-stated; they keep the Trade thoroughly "posted" in all the latest improvements and developments, so that the Tradesman can see at a glance the extent of the resources at his command.

It may perhaps be urged, that, "one of these Exhibitions is very much like another," and the charge is perfectly true, and will always be so; but it does not in any way invalidate or weaken the claims of the Exhibition upon us. The truth underlying the story of the Artist who kept a beautiful stone always by him; so that when his eye got dull in its perception of the colors on his palette, he could brace it up again by looking on the pure tints of the stone itself— is applicable here. We are apt to run on in a humdrum fashion, content to do what has been done thousands of times before. By visiting such collections as those at the Agricultural Hall, we are able to compare and gauge our position in relation to what others are doing. For instance, a sight of the "Lincrusta Walton" Exhibit would give an idea of its adaptability and capacity for decorative purposes, that could be obtained by no other means. This alone would be worth going a very long way to see, but when we have in addition such displays as Messrs. Jeffreys and Co., W. Woollam and Co., and many others equally interesting and useful to the Decorator; it becomes a matter of duty, to make a point of seeing them.

Amongst the many Exhibitions of colours and varnishes, Messrs. Wilkinson, Heywood and Clark's case,—which was shewn in the West Gallery, in connection with the Journal of Decorative Art Exhibition—was conspicuous for its pretty and attractive appearance and the purity and brilliancy of some of the tints. This firm make a speciality in reds, which they name "Empress Reds," there being several shades and qualities, all of them being very beautiful in colour and of great staining power. Some of the lakes exhibited were very pleasing in color and most useful for decorative purposes, the term "Lake" being applied to those colours made in "drops." "It goes without saying" that there were some good specimens of Varnish to be found there. Some panels exhibited by the Editor of this Journal and polished with Messrs. Wilkinson, Heywood and Clark's polishing body Varnish were specially admired for their smooth marble-like surface.

In the same gallery were to be found Messrs. J. B. Orr and Co.'s Case of Exhibits. With Mr. Orr's name, we inseparably associate "Charlton White" and "Duresco." Of this latter article we are pleased to learn that it can hardly be made in sufficient quantities to meet the demands for it. We are sure that when the trade knows the valuable medium it possesses in "Duresco," the difficulties of supply will be increased tenfold. Mr. Pearce's exhibit shewed how available it is for Decorative purposes and possessing, as it does, the valuable property of being washable, we think the trade ought to use it, much more than they do. "Charlton White" is also a pigment that can adopt Bayard's celebrated motto "Sans peur, sans reproche" as its own. Charlton White possesses great covering power and whiteness, and is a non-poisonous paint. In addition it has many claims on the attention and support of the Trade, and the exhibits in the Journal of Decorative Art Exhibition, displayed its artistic capabilities.

Besides these leading articles manufactured by The Silicate Paint Company there were a number of the ingredients which go to make the now celebrated pigments which we have named, and specimens of the tints in which Duresco and the Silicate paint are supplied ready made.

We shall take the exhibits downstairs in the order of their numbering, and what our space will not admit of this month we shall describe in our May issue.

Stand No. 17—A. L. Moore & Co., Southampton Row, W.C. Stained Glass and Decorations. Some very excellent specimens of stained glass for both ceiling and window lights, suitable for domestic or church work, were exhibited by Messrs. Moore. They also showed some good ecclesiastical decorations, and we noticed two specimen sets of organ pipes very tastefully decorated. There were numerous cartoons of figure work which had been executed at various churches and mansions throughout the country, all showing good work both in design and colouring.

Stand No. 29—Messrs. F. Walton & Co. Messrs. Walton's exhibit of specimens of "Lincrusta" was one of the most conspicuous and tasteful in the entire exhibition. The firm have some good decorators about them, able to manipulate the decorating of their speciality to the greatest advantage. Visitors to the exhibition could not fail to be impressed with the value of Lincrusta for decorative purposes, by seeing the goods on exhibition on Stand 29, and many hints could be obtained, as to how best to utilize and and take advantage of this material. We have repeatedly drawn attention to the claims Lincrusta has upon the Trades represented by this journal, and feel assured that the future development which awaits it, is one of great magnitude. We would advise all who have not yet sent for the descriptive pamphlet and new price list, to do so at once.

Stand 46—Messrs. Hodgkinson & Clarke, Birmingham. Messrs. H. & C.'s well arranged display is now somewhat familiar to the frequenters of these exhibitions, but nevertheless, they continue, to show the advantages and special merits of their Queen Anne Window Blinds. Amongst their stained glass exhibits were some pieces of exceptional merit.

(To be continued.)

OUR ILLUSTRATIONS.



OUR Illustrations for this month comprise a double page containing two designs for panel decoration, one page of frieze designs, and one page containing a figure of Poetry, being another of the series of which we have already given two. Of the panel designs, one is in the Italian style, the other being treated in a semi-naturalistic style. The former may be used as a stencil if the background is cut away and the colours stencilled in. The ornament may then be outlined, and the fibres put in with the pencil.

The second panel may be done entirely by stencilling, the flowers being two colours and the leaves done in graduated tints as described in the article on stencils and stencilling in this number. The dots on the ground look well gilt.

The frieze designs of course are open to any kind of treatment suitable to the room in which they are used. The same may be said of the figure of Poetry.

In our March number we omitted to state that if the design given for an inlaid table top is done just twice the size of the drawing, it will make an appropriate fancy table top.

In our May number we shall give four pages of illustrations of some of the designs sent in, in competition for prizes, to the "Journal of Decorative Art Prize Scheme Exhibition," held at the Agricultural Hall, Islington, just closed.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 176.)

CHAPTER XVII.—INLAYING OF WOODS.

WE have hitherto been describing the process of imitating marquetry or inlaid woods as it is done upon painted grounds. We have now to describe the process as it may be applied on the surface of real woods, such as white deal or pine, pitch pine, light baywood, &c. In this case we do not of course require to grain the various woods as before described but simply to colour, or stain the grain of the real wood, of the colour of each separate wood we wish the inlay to represent, and as there are several methods, and various stains, that may be used we shall endeavour to make the description as easily understood as we possibly can. The process we have already described, will apply equally to the real wood, and the painted surface, providing the wood is first coated with oak or other oil varnish, which prevents the graining colour penetrating the wood, just as the paint does, but that is not staining the wood, although it is a quick and very effective method of decorating the woodwork of churches and dwelling houses. Pew doors may thus be ornamented and numbered, on this plan, by either putting a stencilled design in black on the pitch pine, or stencilling the pattern on to the varnished wood, and then covering the whole of the panel with a darker colour to represent any dark wood, or with distemper black, and then washing off the stopping varnish as before described in the graining process. But in the staining process the stains should penetrate the wood. A great number of various chemical mixtures are used for this purpose, a list of some of them are given below, but for most purposes the stains for wood made by Mr. H. C. Stephens, Aldersgate, London, and Messrs. Pontifex and Wood are all that is necessary for the purpose of staining or dyeing wood of any colour required. The first named stains we have used with success for the last forty years, for staining and decorating wood; of the stains sent out by the latter firm we have before spoken in the highest terms. The foregoing stains are all practical stains, made to imitate all the different woods used in cabinet and general woodwork. Of fancy stains or dyes we give here a list extracted from the *Artist*, a valuable record of all matters of interest in the world of art. "Ground Brazil wood, well boiled with a little cochineal added after it has been boiled, will make a crimson stain, and if the wood is previously coated with saffron liquid, similarly prepared, it will give a scarlet tint. Logwood chips, boiled, and pearlash and indigo added afterwards, will make a purple stain. Oil of vitriol, in which powdered indigo is dissolved, will make a blue stain. Pulverised verdigris, sap green, and indigo, added to strong vinegar, will make a green stain. A small piece of aloes in varnish will make a bright yellow, French berries also makes a good yellow. Archil is a good red stain. Iron rust dissolved in vinegar affords a silver grey for staining light woods; a coating of a light red stain over a yellow one will make orange. Logwood chips well boiled and the wood coated with it, will be turned black by iron rust dissolved in vinegar."

We give the above as supplementary information just for what they are worth, they may possibly be useful for some purposes. Messrs. Trollope or rather Mr. Andrew Fingar Brophy, a gentleman in their employ took out a patent, some years ago, for imitating inlaid woods by what he calls a new process of staining and ornamenting wood. This was however a mistake as the process was at that time much older than Mr. Brophy himself. He no doubt was under the impression that the process was really a new invention. However some very beautiful and indeed exceptional works have been done by Messrs. Trollope by this process, and although it is in almost every respect the same process as that we have ourselves practised and which we shall describe in another chapter, we give the specification of the patent here for the benefit of our readers. Xylatechnigraphy, by which extraordinary name Messrs. Trollope have introduced their patent to the public is thus described by its inventor: "In order that my said invention may be most fully understood and readily carried into effect I will proceed to describe more in detail the manner in which I prefer to operate. Any of the ordinary woods used by the cabinet-makers are suitable to be ornamented by my invention, as the grain of the wood remains visible in the finished work, more especially in the lighter wood thereof. Woods with little figure, and consequently the least expensive are the most suitable. The surface of the wood is powdered with chalk to facilitate the manipulation of the design, which is then traced or marked on the surface of the wood in any convenient manner, and then, so much of the design as is to remain of the natural colour of the wood is painted or coated by the artist with white hard varnish or stain-resisting solution; gums dissolved in spirits are suitable, I use white hard varnish. It is applied with a brush in such a manner as to obtain a sound varnish coating on the parts of the design where it is required. If on the first application of the varnish a sound coating of the varnish is not obtained the operation must be repeated. The varnish being set, the lightest stain which is to be employed is next laid on; and when this is dry such parts of the surface as are to remain without further colour are in turn coated by the artist with the stopping varnish." Over this, when it is quite set, another darker stain is applied, and in this way the work proceeds, the artist employing any number of stains requisite to produce the effect he desires. These stains may or may not be laid over the entire surface, as may be most suitable or convenient to the work in hand; but the stains in all cases will overlap the one on the other, for in laying on the stains, they are not to be worked to an outline of the design, but the

outlines are to be obtained by the careful laying on of the solution or varnish, which prevents the stains at certain parts from sinking into the wood. When all the stains necessary to the desired effect have been laid on in regular gradations, from the lightest to the darkest, the work has to be cleaned off, that is to say, the upper films of the various coatings of resisting varnish, which will be discoloured by the stains, must be removed with great care and by degrees, or the wood beneath will be soiled. This is a work of some delicacy; it requires the application of a varnish solvent of such a nature as to be under complete control. I employ as a solvent spirits of wine, and I temper its action by the addition of French polish. At the commencement of the cleaning operation, a mixture containing but a very small proportion of spirit is increased until the end of the process, and then spirits of wine is alone used. The work may (when it has been properly cleaned) be French polished, or varnished in the usual way. The solutions ordinarily used for staining wood are applicable to the process above set forth. Having thus described the nature of my said invention and the manner of performing the same, I would have it understood that what I claim as my improvement in staining and ornamenting wood is, the application of successive partial coatings of a resisting solution or varnish in accordance with the pattern or design it is desired to stain, and the alternating such resisting coatings with coatings of resisting solutions, the one overlapping the other substantially as described.

We have given the above specification of Mr. Brophy's process of staining and ornamenting woods, to show how necessary it is for us to do as the old adage inculcates, viz., to look before we leap. Had Mr. Fingar Brophy made a few enquiries before he applied for a Patent right, he would have saved himself much expense and trouble, as the process is identical with the one described by us for working upon painted grounds, differing only in the fact that stain and French polish is used upon the real wood instead of distemper colours. In the Exhibition of 1871, Messrs. Trollope exhibited some specimens of work done by the above process, which, for excellence of workmanship, beauty of design, and harmony of colour, were worthy of the highest praise, and which received universal commendation. Now had they simply described these works as examples of what might be done by the ordinary process of imitating inlaid woods by means of staining and graining, when the highest degree of taste and manipulative skill were directed to its capabilities, they would have placed the matter in exactly the right light, but in that case, architects and other followers of the realistic views, would have denounced them as shams, but being introduced under a high-sounding and unpronounceable title, and being as they were, excellent examples of the highest manipulative skill and beautiful in themselves, they were accepted as a valuable addition to our decorative resources.

We are now about to describe a method of our own for staining white woods in various patterns in imitation of inlaid woods. It is simple, thoroughly effective, and much quicker done than the so-called patent process we have described above, and it is worked as follows:—We prepare the panel or table top as smoothly as possible. We then give it one or two coats of the following mixture. Glue size of just sufficient strength to form a jelly, add to this a little egg albumen and a small quantity of alum. When thoroughly dissolved and mixed, coat the whole of the surface to be stained, with it. Two coats will be required, but this preparation must not be too strong. When this is dry and thoroughly hard, the design must be traced or pounced upon it. We now use Brunswick black, or Canada balsam, and paint in the outline of the pattern and all other parts that are to remain of the natural colour of the wood, laying on the black with a good body. We let this remain until it gets thoroughly hard, which will be in about six or seven hours. We now take a sponge and clean water and wash off all the size preparation which is on the parts not covered by the Brunswick black (luke-warm water may be used). The preparation must be all removed before any of the stains are applied. The Brunswick black prevents the water from interfering with the preparation which is underneath it, and also prevents the stain from running one into the other, when they are being applied. The wood must now be allowed to dry, when it will be ready for the application of the coloured stains. If the outline has been properly done it will appear as a black outline. The various parts of the ornament and the line should be fully a sixteenth of an inch wide, but may be wider if required. Having decided, what parts shall be one wood and what another, we proceed to put in the stains which may be either spirit stains or water stains, or part one and part the other, but whichever is used, the lightest stains must first be put in, and in doing this we need not confine it to the exact outline of that particular part, but it is as well to do so. The stain may be freely used and laid as level as it will allow, but a little shadiness is not at all objectionable. We now proceed with the next darkest stain, and so on for as many stains as are required. When this is dry and hard, the Brunswick black may be washed clean off the wood with a brush and turpentine, using the turps freely until the whole of the Brunswick black is removed. When this is the case the various coloured stains will appear enclosed within a white outline, which if properly done, will be sharp, and clean, and clear as an inlay of the real woods. What grain the white wood has, will be more or less seen through the stains, as they may be light or dark. The work may then be French polished, or varnished, but in all cases we would recommend the polish. When a black outline is required instead of a white one, the work must be prepared as before described, and then a coat of black in distemper must be put upon it, and the outline painted in with the Brunswick black as before. The black and preparation is then washed clean off, and the staining done as above directed. As a matter of course each stain may be covered with the Brunswick black before another is applied, but with ordinary care in the working, this need not be done. It will be seen that this is a much simpler method than Brophy's patent, and better adapted for general work. We

ourselves took out a patent some years ago for this purpose, but the patent was for the application of transfer printing from copper or other metal plates. The woodwork was prepared in the manner above stated, the outlines of the ornament being engraved and printed upon transfer paper—the same as used in the potteries for printing upon earthenware, china, &c. This outline print was transferred to the prepared wood, the preparation was then washed off, and the stain applied as above described. In this case the patent was not for the method of staining, but for the printing and staining.

(To be continued.)

TRADE INTELLIGENCE.

In conversation with a gentleman from Somerset the other day, at the *Journal of Decorative Art* Exhibition, he recited to us his experience of blooming varnishes, which in brief was as follows: He had painted and afterwards varnished the staircase of a house at Croydon from top to bottom, with the varnish supplied by a firm that plumes itself on being *non secundus* in the varnish trade. At the expiration of twelve months, his client called on him, and said he thought his house wanted doing again; on going to see the work our informant found the staircase, one mass of bloom, and to remedy it, had to cut down and re-varnish the entire lot. We are surprised that painters continue to submit to this serious drawback, when they can buy a varnish equally good, if not better, and *warranted not to bloom*, from Messrs. Wilkinson, Heywood, and Clark.

Messrs. John Line & Sons' (of Reading) Pattern Books came to hand too late for notice in the March issue of the journal, but we have great pleasure in directing the attention of the trade to the sterling quality of the collection. The patterns are selected with good taste and with a view to the requirements of the day which demands the maximum of quality at the minimum of cost. Messrs. Line's Stand Book, should be had by all good decorators, their cheap book is likewise, put together with an eye to the necessities of the trade.

Mr. Robert Pollitt, the well known decorative artist of Manchester, is at present engaged painting the work for the forthcoming bazaar at St. James's Hall in that city. The bazaar is to be on a scale never before attempted in this country, and will represent the principal street of a German city in the middle ages, the cathedral will be at one end of the street and as a natural sequence, the hostelry at the other. The painting of the buildings is being done by Mr. Pollitt under the direction and from the designs of Alfred Darbyshire, Esq., F.I.R.B.A.

We have received from Messrs. L. Smith & Co., John Dalton Street, Manchester, their new show cards of picture and room mouldings, which we recommend to the trade. Mouldings of every description and for every purpose are to be found here, and from Messrs. Smith's large command of the markets they are enabled to supply these goods at the best possible prices to the consumer.

ANSWERS TO CORRESPONDENTS.

C. W. K., Kingston-on-Thames.—Your letter came too late for our March number, as the type was all set up. Enamelled glass and obscured glass are two different things. What you wish to know is how to obscure the glass after having eaten letters or ornaments away with hydro-fluoric acid. This is done by using a flat piece of thick glass or lead, and grinding the surface with emery powder and water, or fine silver sand is also used for this purpose, the letters and ornaments being sunk beneath the surface, the grinding does not affect them, but grinds the surface level and causes it to look a dead white when seen through.

H. B., Peterboro'.—We think a perusal of our article on inlaying in this month's issue will answer your needs.

"One Anxious to Learn," Notting Hill, London.—You may purchase all the material required for water gilding, from any gilder's establishment. This would be your best plan as you would then get exactly what you want. Whereas if you were to make it yourself you would most likely fail in making it workable. Water gilding is a long and intricate process to describe, and would require several chapters to give the necessary information fully. In some future articles we shall give detailed instructions in every kind of gilding. In your second question you ask if it is possible for an ordinary decorator to make and use the paints or colour used by the glass painter. We presume you mean enamel colours such as the glass-stainer uses. We are afraid that while it is possible for you to do this, it would only be after a long course of study and some practical knowledge of the nature and properties of enamel colours, the process of fireing, &c. As a matter of course a good figure-painter could paint upon glass if he is as we have before said thoroughly acquainted with the colours and mediums used and their manipulation, but not otherwise. We have a system of glass-painting we patented years ago, which in due course we shall describe in the journal, by which beautiful works in all colours may be executed without fireing.

W. H. C., North Shore, Blackpool.—You say that you are using bronze powder upon iron-work, and that the bronze, although of a gold colour, turns green when varnished. This is a matter upon which we cannot speak from experience, never having had such a case. There are of course all colours of bronze powder, and all qualities, but we see no reasonable cause for good bronze powder changing colour, except it is left unvarnished for any length of time. All bronzes will turn black or some other colour, if exposed to the air unprotected, but if good, and well varnished, will stand and keep their colour for any length of time. No greater proof could be offered of this fact, than the Japanese and Chinese tea trays, and the same description of work turned out from the japanners' shops in our own country. With regard to your case we should say that there is either something in the atmosphere of the room or place the work is done in which affects the bronze, or that the bronze itself is not of the best. The method of working you have described is the best we know of, that is to say, if you do not put the bronze on to the varnish when it is too soft; this will often cause it to change colour. We may say however, that lemon-coloured bronze is more likely to turn green than the darker-coloured kinds. You might try a little of the copper-bronze with it which might possibly prevent the green tone from appearing.

CORRESPONDENCE.

To the Editor of the Journal of Decorative Art.

Gentlemen,—In the March number of your valuable journal the "Measuring Card," for calculating the quantity of paper for rooms, is stated to be Mr. Stock's invention. We beg to inform you that it originated with a member of our firm about thirty years ago, and as a proof of its usefulness, has been copied by many, amongst others, Mr. Stock. As your readers may be under a wrong impression, we think it but right to give this information, relying upon your sense of fairness to "Let honour be to whom honour is due."—Yours faithfully,

Cotterell Brothers.

11, Clare Street, Bristol.

[We have received the above letter from Messrs. Cotterell Brothers, paper-stainers, of Bristol, in reference to the very useful table of figures for ascertaining the number of pieces of wall paper any room will take, given in our last. In publishing this we did not say that Mr. Stock was the inventor of the table, but that it was issued by him.—Ed. "J. of D.A."]



O. Williams, Invt. and Delt. Design for Dado.





O. Williams, Invt. and Delt.

Designs for Frieze.

E SCHEME COMPETITION, 1882.
RIZE, SECTION I. CLASS A.

3, 62, Bush Hill Park, Enfield.

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] MAY. [PRICE 7D.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

THE JOURNAL OF DECORATIVE ART PRIZE SCHEME COMPETITION AND EXHIBITION AT THE AGRICULTURAL HALL.

CONCLUDING NOTICE.

WE now come to the Exhibits of the marbles and woods, under Sections II. and III. respectively. We may say generally, that the exhibits in these two Sections, were not up to the standard of excellence they ought to have reached; those of us who can go back to the Exhibition of '62 and recall the work then exhibited by Kershaw, Nichol, Manooch, and others, whose names were then synonyms of excellence in their special branches, cannot but regret that the arts of graining and marbling have fallen into such disuse, for notwithstanding the dicta of Ruskin, we are convinced that when practised in a proper spirit, their influence is one of a directly educational kind both as regards colour and form.

We hope to encourage and foster a revival of the practice by the means of this journal, and by these exhibitions, and look to our friends and subscribers to support us, and second our endeavours in this direction; but we do it on the distinct ground that to deserve preservation, the imitation both of woods and marbles, must be good ones; here again joining issue with the teaching of Ruskin, who contends that the worse the imitation, the more admissible the work. In our opinion the sole claim that both graining and marbling has for our recognition and support, consists in its being well done, and like what it professes to be.

THE J. B. ORR & CO.'S CHARLTON PRIZE.

SECTION II. CLASS F.

1st Prize, £5 12s. 2nd Prize, £2 15s. 3rd Prize, £1 5s.

The competitors in this division were not numerous, only four sets of panels being sent in. Two of these sets were very good, one set was indifferently done, and one set was done without any regard to the marbles they were supposed to imitate.

The first prize was deservedly won by Mr. Henry Barclay, his panels displaying some care in their "get up" which added considerably to their value and appearance. The panels were not all of equal merit, some being better imitations than others; the following order gives their respective value as imitations, Rouge Roi, Sienna, and Dove, all excellent, having plenty of depth and softness, and preserving well their individual characteristics. Green, good in its way but somewhat "painty." Italian pink, this, while being well painted, was not of the character of Italian pink as we are familiar with it, nor like what Kershaw painted it twenty years ago, the veining in the samples shown, partaking more of the character of Sienna than otherwise. The marble we know under this name, is very angular in its formation and character, like broken pieces of porcelain floated and joined together. Black and gold, fairly well painted, the whole set were decidedly the best shown.

Mr. Croker's panels (2nd Prize) were somewhat similar in style to the preceding set but not of equal merit. The Sienna was a long way in front of the others for clever imitation, next came the Rouge Roi and the Green both displaying good work, whilst the Black and gold, Italian Pink, and Dove, had not, near the merit, which those just enumerated possessed.

S. Smith.—3rd Prize.—Very moderately done, bearing evidence of haste in execution, not at all satisfactory considering the source from whence they came.

W. S.—We were sorry to see these panels, because we could not but feel, that if the energies had been better directed, and samples of the marbles themselves been possessed to work from; the results would have been more satisfactory. We recognised the intention, and honour it, but would seriously impress upon the competitor that he needs the actual marbles to study from; before he can make much satisfactory progress.

PRIZES FOR GRAINING.

SECTION III.

1st Prize, £5. 2nd Prize, £3. 3rd Prize, £1 10s.

In this section we had eight competitors, some very good, and some very poor work being shown. Mr. J. Marks, Belfast, won the first prize and his panels were not only the most carefully worked out, but the best prepared of any shown in this competition. These panels varied in merit some being better than others, though there was a good general average value.

As an imitation we must give the place of honour to the Hungarian ash, which was most excellent in its way, then came the walnut which was almost equally good. After this must be placed the pollard oak, and then the mahogany, the oak and maple bringing up the rear. There was not a bad panel amongst the set, though some were much stronger and better than others.

2nd Prize.—Mr. Henry Bridger, Liverpool.—These panels were more conventional in their working than were those which took the first prize, Nature

not being followed so closely. The walnut panel was the premier one in this set, and was followed by the Hungarian ash as second, and the oak as third, this latter, not very "natural," but cleanly worked. The pollard oak came next and the maple and mahogany last.

3rd Prize.—Mr. Henry Barclay.—The panels sent in by Mr. Barclay ran the second prize set very closely, here also the walnut was the best panel, the mahogany, oak, maple, Hungarian ash, and pollard oak following in order of merit as we have enumerated them.

Mark ● ●.—A set of panels very similar in manner of execution, to the third prize set, the oak here taking precedence of the rest, and the maple, mahogany, walnut, ash, and pollard oak, being in value as indicated by the position we have placed them.

Mark CW.—All very clean and carefully executed but very conventional in their manner.

Motto "Succedaneum."—Cleanly and carefully done the oak being especially good and the mahogany taking second place.

The last four sets of panels, were all very near together, in point of merit, and it was a difficult thing to say which was best.

The seventh set of grained panels were very indifferently done, the Hungarian ash being very poor indeed, and the eighth set (W. S.) were manifestly done without a sufficient knowledge of the woods imitated.

There is a tendency amongst many grainers to get an acquaintance with the woods to a certain extent, and they then trade on this limited capital to such a degree, that in due course these forms and mannerisms become stereotyped, and you can tell who has grained "such a door," by the configuration, as readily as you can detect the voice or face of a friend from a multitude of surrounding strangers. This is to some extent inevitable, but the great endeavour of the grainer should be, to avoid it as far as possible, and aim at versatility in character. We see this in nature on every hand, and should seek to compass it in art.

In closing our notice of this the first of our Exhibitions, we feel no reason for dissatisfaction at the results; in connection with a first effort, it was inevitable that there should be failures, but the experience we have herein gained will stand us in good stead another year; we think too, that a degree of confidence will be imparted in our next effort, which will result in our gathering together a display which shall be representative of the executant skill of the trade throughout the three kingdoms. We may say for the benefit of our readers and subscribers that we are already making arrangements for an Exhibition next year, which we shall announce at the earliest possible moment.

American Opinion on "The Journal of Decorative Art."—We beg to call the attention of those of our readers who are interested in house decoration to this excellent and ably conducted journal. We know of nothing in this line that will suit our decorators better than the journal before us.—*The Builder and Woodworker*, April, 1882.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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Chapter XVIII.—Decorative Processes.



Some very beautiful effects may be got in monotones by using two stencils only. Leaves or flowers, may be stencilled in two lighter colours of the same tone as the ground upon which they are stencilled, and thus we may produce the effect of light and shade, although in flat tints. Very soft, quiet and harmonious effects may thus be obtained at but little cost. Different shades of neutral greys and greens are suitable colours for this work. We may also stencil in the leaves, flowers, and stem, or arabesque ornaments, in their various colours and then finish them by hand. All these will of course require to be carefully done in order to produce good work, and when done upon woodwork the dabbing motion of the stencil brush should not be adopted, except we want the design to appear in slight relief. As we have before said, by putting on the colour by the rubbing or circular motion of the stencil brush, we produce a smoother surface, which is not only better for woodwork, but is also better for working on afterwards. A great variety of work may be done with stencil patterns as well as those we have described above. In addition to stencilling in colours, patterns may be stencilled upon gold grounds, these latter being first sized with weak glue size. Ornaments can be stencilled in oil gold size and afterwards gilt, but in this case the size should be put on very sparingly, by means of brushing or rubbing with the stencil brush, in order to make the gold lay level and smooth, and leave no thick or fat edges. There is a wide field for its application in this form. Patterns may be produced in slight relief by stencilling in stiff gold size, and this may be done by dabbing, as the size may be used more freely, but not sufficient to cause it to run or spread. When the gold size is laid on, fine or coarse sand (as fine, or coarse work is desired) may be thrown upon the size after it has got set, with an ordinary flour dredger; sufficient of the sand will stick to the size to give the pattern a rough and granular surface. This rough surface in contrast with the smooth surface of the ground upon which it is done will give an admirable effect. When this is dry it should be brushed well in order to remove all loose sand that may remain. Paper should be placed upon the floor while the sanding is being done, to catch the sand which falls down, it can then be used again. Now when the sanded pattern has got quite hard and firm, it may be treated in a variety of ways. In the first place, the stencilling and sanding may be done upon a varnished ground, and left so, the contrast between the two giving an excellent result; we may also paint the wall all one colour, producing a pattern in monotone

by the effect of the rough raised surface with the comparatively smooth ground. Then again, we may gild the whole of the wall and pattern, and so produce the effect of dead and bright gold, this has a very beautiful effect, and possesses a quiet richness, scarcely possible by any other means. If the stiff gold size used for stencilling the pattern with, is properly mixed, fine blue smalts, or any colour of powdered glass, may be used in this way with good effect. A very rich powder may be made for using in the manner above described, in this wise: a sheet of ordinary glass must be gilded with gold leaf, using a pretty strong solution of isinglass in water, as a medium to fasten the gold to the glass; when dry we paint over the gold with black japan, one or two coats as may be desirable. We let this stand for a few days until it gets thoroughly dry and hard, in this state it will be very brittle. If it can be hardened by the application of heat so much the better, but in any case it must be hard and brittle. We then take a fine-edged knife and scrape or chip off the black which brings the gold with it, these break up into thin small scales being brightly burnished gold on one side and black on the other; of course any other colour may be used instead of black for backing the gold, but it must be mixed with some quick hard-drying varnish, so as to cause it to be brittle when hard. These small dust scales may be thrown or blown through a tube on to the stiff gold size in the same way as the sand above described, the flakes or scales will adhere to the size and have a very singular but brilliant effect, of course this plan is only applicable to comparatively small surfaces.

Stencil plates are also used for diapering upon glass, in imitation of ground glass; known as "enamel" glass. The pattern is stencilled upon the glass in a varnish paint, almost any paint will do that will stencil sharp and clear upon the glass. This is allowed to dry, and then the flux or white semi-opaque enamel is brushed over the glass, made level, and spread evenly with the badger-hair softener. The glass is then placed in the muffle heated to the necessary degree to partially vitrify the enamel. This makes it hard, and in fact unites the enamel and the glass. In firing, the paint with which the pattern is stencilled on to the glass, is burnt away, leaving but dust, which is brushed off, and the pattern appears as clear glass against the dead white of the enamel. Another plan to effect the same object is, to first spread the enamel upon the glass, and when it is set, the stencil pattern is placed upon it, and a stiff stencil brush is then used to brush off the enamel through the interstices of the pattern, it is then put into the muffle and fired as before described. Wall diapering may be done on a similar plan to the above by mixing the colour to be used so that it will be fast enough to allow the pattern to be brushed off with a dry stencil brush or stiff tool. To effect this purpose the colour should be mixed with a little japanner's gold size and turps, with just a sufficient quantity of raw linseed oil added, to prevent its setting too hard or drying too quickly. The gold size (or a quick drying varnish will do) will cause the colour to set with sufficient tenacity to prevent injury in working if carefully used, and the oil gives the necessary time for working. By using this kind of colour on a varnished ground some very excellent effects may be produced; imitations of watered fabrics may thus be done. Before leaving the subject of stencils and stencilling, we would give our readers a word of advice in regard to the purchasing of stencil patterns. We continually see advertised stencil patterns of all kinds, some cut by machinery, some cut upon this system, and others upon that, some are stamped out, others again are cut in thin paper which is fastened together by patent knotting or other medium, as many as six or a dozen sheets being thus laid one upon another, and the pattern cut at once through the whole of them, the mass is then warmed and the sheets separated, each sheet forming a separate stencil pattern. Now it will be at once evident that stencils cut upon such a system must of necessity have the different parts of the pattern wide apart, that the ties when any are used must be broad, giving the design a straggling and detached appearance; not only so but as a rule they are far below mediocrity in design, devoid of originality, and in nine cases out of ten, too large or too small for the position they have to occupy, giving them the appearance of being makeshifts. Mind, we do not condemn all indiscriminately, there are of course stencils and stencils, but the above is the general character of them. Another objection lies in the fact, that the men who call upon you to sell stencil patterns, will unblushingly affirm that their patterns are entirely original; and will give you their assurance that they will not sell the same patterns to any one else in the town but you, the fact being, that they don't by any means stick to their word; and the result is that you purchase a door-panel design, or a dado border, and use them in some gentleman's house, the chances being ten to one that you will see the same patterns used in some beer-house or gin-shop, or other place of the kind; not a pleasant thought this, especially for the gentleman, your customer. We would say to our readers, if you are not able to design or get out the patterns yourself, employ some one who is capable of supplying you with original designs of good quality. If you are young, an apprentice or improver, attend the schools of design, learn to draw, keep a blank paper book and a black lead pencil in your pocket, and utilise every spare moment in season and out of season. Make a determination that you will learn to draw, and practice incessantly, and the power will come soon or late, as you act with vigour or not. Don't be discouraged at your non-success, Rome was not built in a day, and there is no royal road to learning of any kind—hard work allied to firm intentions and determined effort, is the only path to success; and the pleasure derived from using a design entirely of your own invention, is far beyond that derived from any other source.

We ourselves very rarely use a stencil pattern, or in fact any other design twice, that is on two different jobs. We would advise employers requiring designs, to measure the sizes of panels or other works to be decorated, with stencil pattern or otherwise, and send them up to some well known

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designer, who will supply proportional designs adapted to the spaces they have to occupy, possessing a character of their own, not stock patterns of which thousands may be bought for a mere song, and not worth the song when bought.

Good patterns to copy, will go far to teach the student what he must strive to attain, and what he must try to avoid; this being a kind of knowledge difficult of attainment, but of immense value when once acquired. The fault of a large proportion of decorative work now-a-days is the habit of overcrowding the work with useless ornament. We say useless advisedly, because all ornament which tends to confuse and overcrowd a design is useless, or worse. Simplicity, grace, and beauty are sacrificed to vulgar redundancy. However, this is a subject which is of too much importance to be treated of in a paragraph, and we hope to be able to return to the matter in some future number, and enter fully into the subject.

(To be continued.)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

Continued from page 187.

Chapter XVI.

WHEN certain charges are disposed from one corner of the shield to the opposite base diagonally, crossing each other in the centre of the escutcheon, they are called in the blazoning of arms "in Saltire, or Salterways," as at Figure 49, Gules, two tilting spears, Salterways, proper. The word—"proper"—wherever it occurs in heraldry, means to be painted or coloured as it is in nature, or in general use.

The Chevron.

This ordinary consists of the lower half of the Saltire, and derives its name from the French—who call two rafters, or pieces of timber, which being joined together at the top and rest upon opposite walls at the bottom, form the support of a roof—a Chevron. It has also its diminutives, namely, the Chevronel, which is the half of the Chevron, and the Coupleclose, which is half of the Chevronel, and is to the Chevron, as the latter is to the Bend, that is, so exclusively and closely attached to it that it never appears but in its company. The French have but one diminutive of this ordinary, which they term *étaye*, a prop or support, and it contains the third part of the Chevron.

The etymology of the French architectural word Chevron appears to be borrowed from chevre, a goat, for when two goats butt together, head to head, their position is somewhat like that of the two rafters spoken of above, meeting in an angular attitude.

Fig. 50, Argent, a Chevron Gules. The Chevron ought to be shaded underneath, and not one side under and the other over, as in Fig. 51, Per Pale, Or and Azure, a Chevron countercharged. Fig. 52, Argent, a Pale Gules, surmounted by a Chevron, engrailed, countercharged. Fig. 53, Or, three Chevrons, Gules. Fig. 54, Vert, a Chevron between two Chevronels, Argent. This coat might be blazoned, Vert, a Chevron cottised, Argent; or Vert, a Chevron couple-closed, Argent. Fig. 55, Or, a Fess between two Chevrons, Gules. Fig. 56, Azure, a Chevron removed Argent.

When the field is divided more than once per Chevron, the term used in blazoning the same is Chevronny, or Chevronne of four, six, or eight pieces, as at Fig. 57, Chevronny of six, Or and Sable; and when the charges on an escutcheon are disposed in an angle, the summit of which is directed towards the top of the shield, it is said to be chevronways, as at Figure 58, Argent, a heart supported by two swords chevronways, proper.

Fig. 59, Gules, a Chevron Humette, Or. Fig. 60, Azure, three Chevronels interlaced, Argent. Some heralds describe them as Chevronels braced.

The Chief.

The Chief is so called because it occupies the chief or head part of the escutcheon. It is an ordinary, determined and bounded by an horizontal line across the shield, distant a third part of the field measuring from the top edge of the shield. This line may be indented, wavy, &c., &c., and in that case should be so expressed in the blazon. Its diminutive is a fillet, which is a chief of a smaller breadth. This ordinary is often made use of as an honourable augmentation in the arms of a man who has deserved well of his country, illustrious instances of which may be seen in the arms of most great naval and military commanders. When the Chief of honourable augmentation (as it is properly called) bears some conspicuous representation of the achievements through which the honours were obtained—Fig. 61, Or, a Chief Sable; Fig. 62, Argent, a Chief Per Pale, Azure and Gules; Fig. 63, Per Pale, Argent and Sable, a Chief indented, countercharged; Fig. 64, Azure, three mullets in Chief Argent—the term "in Chief" is often used to express that some of the charges are in the upper part of the shield.

The above completes the description of the Ordinaries. The charges we have now to describe are considered subordinate in dignity and honour to the Ordinaries we have enumerated.

Subordinate Ordinaries.

Under this title we class all the diminutives of Ordinaries, but as, the better to show their affinity with the parent charge, they have been noticed in their respective places, we shall here content ourselves with giving a clear description of the following, viz.:—The Bordure, Orle, and Tressure, the Inescutcheon, the Pile, the Canton and Quarter, the Flanches and Voiders, the Gyron, the Fret, the Pall or Pairle.

(To be continued.)

DIVISIONS OF THE SHIELD.

THE CHEVRON.



Fig. 49. Gules, two swords, Saltierways, proper.



Fig. 50. Argent, a Chevron Gules.



Fig. 51. Per Pale, Or and Azure, a Chevron Counterchanged.



Fig. 52.—Argent, a Pale Gules surmounted by a Chevron engrailed



Fig. 53.—Or, three Chevronels Gules.



Fig. 54. Vert, a Chevron between two Chevronels Argent.



Fig. 55.—Or, a Fess between two Chevrons Gules.



Fig. 56.—Azure, a Chevron removed Argent.



Fig. 57.—Chevronnes of six, Or and Sable.



Fig. 58.—Argent, a heart supported by two swords, chevronways, proper.



Fig. 59.—Gules, a Chevron Humette Or.



Fig. 60.—Azure, three Chevronels interlaced, Argent.

THE CHIEF.

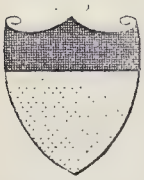


Fig. 61.—Or, a Chief Sable.

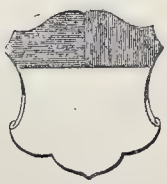


Fig. 62.—Argent, a Chief Per Pale, Azure and Gules.



Fig. 63.—Per Pale, Argent, and Sable, a Chief indented, countercharged.



Fig. 64.—Azure, three mullets in Chief Argent.

OUR ILLUSTRATIONS.

THIS month we give two pages of designs sent in competition to the "Journal of Decorative Art Exhibition" and a double page illustration of border panels for a dining-room ceiling, just executed at The Grange, Stretford, for John Heywood, Esq.

The competitive designs show a Frieze, Dado, and wall filling, designed and executed by Mr. Oliver Williams. These drawings failed to obtain a prize, and this can hardly be wondered at for although they were admirable examples of manipulative skill they show a want of appreciation of the exact requirements of the art of house decoration. They however give great promise, and when the author has had a larger experience in the proper direction he will no doubt produce some original and appropriate works. We can safely say this much of them that as far as they go they were the most perfect examples of accurate pencil work we have seen for a long time. Mr. Williams is about proceeding to Germany for the purpose of study, and being in earnest, we have no doubt of his ultimately making his mark. These designs will be found useful for many purposes.

The two panel decorations are part of a ceiling decoration for a room now in course of execution and form part of the border panels. We shall as soon as possible give a complete drawing of the ceiling.

THE FUTURE OF OUR TRADE.

THE title of this article, is suggestive of a discussion on a question, that is just now, seriously exercising the minds of politicians of both political parties, or, to give "his lordship" his due, of all four parties; but in these columns, we know neither parties nor politics, and the question we are anxious that the trade should take to heart, is one that has been pressing for a solution for some time past, (growing more apparent each year) and is fraught with consequences for good or ill—we are afraid the latter—to the future of the House Painting Trade.

Most employers have, of late years, had unpleasant experiences of a sort of hybrid workman, who was a complete master of his craft—in promises—but the veriest tyro in actual performance. This individual is, unfortunately, only one of a class, which has sprung into existence during the last twenty or thirty years. The enormous expansion of the building trade during that period of time, and the great number of public works, such as railway stations and buildings of like character, which, in their execution, have demanded not so much quality as quantity, have been the prolific source of these parasites of the trade; the apprenticeship of a large railway station, has enabled them to discriminate between the right and the wrong end of the brush, and thus equipped, they have sallied forth in shoals, joined the society, and settled down in the trade as "full-fledged painters."

The Trades' Union Movement has all along had our full sympathy and good wishes, for its success in its legitimate functions, but there has been a fatal short-sightedness amongst its promoters, in their eagerness to augment the members' roll; and under the operation of this anxiety, men have been admitted to their ranks who have had no other claim to membership, than that of paying their entrance fee and weekly or monthly subscriptions. The results of this have been bad in a three-fold sense—it has lowered the general character and status of the operative painter, it has handicapped the good workman (subject to the society's rules) most heavily, and, lastly, but most seriously of all, it has almost annihilated the apprenticeship system. For when parents saw the character of the men who were thus swelling the ranks of the trade, without any preliminary probation, it was scarcely likely that they would put their sons for a term of six or seven years, to,—at the end of that time,—arrive at nominally the same results.

Any one who can look back twenty years or more, and compare the character of the operative painter then, with the members of his class now to be met with, cannot fail to make comparisons anything but favourable to the latter, and we may well ask ourselves what is to be the outcome of it all.

When the apprenticeship system was in operation, despite low wages and long hours, we did turn out journeymen who thoroughly understood their trade, and were content to pursue it, and found a pleasure in so doing; but now-a-days, a lad comes into the shop as errand boy, not bound in any way; after a twelvemonth he is sent on to a job to attend to the men, in the interval he is probably set to rub down, &c., the third year he is allowed to paint back doors and work of that class, but before the fourth season comes round he is off to other spheres, and, if he happens to be a big lad, he tries to pass as a journeyman, asking for journeyman's wages with the greatest complacency, and, should he be placed upon a job with a not over scrupulous foreman, he is kept on at the master's expense, and to his manifest disadvantage. We have not over stated the case one tittle, it is but the common experience of any large employer, and the fault is to be traced to the causes we have pointed out, and to the eagerness to earn big wages, independent of any qualification or capacity to do it, which is the bane of all sections of our artizan class.

The question which we have to face, and settle one way or the other, is, How can we raise the tone and quality of the Operative Painter of the future? It is hopeless expecting to effect any reformation or alteration in the present generation, to accomplish any radical and permanent good, we must,



W. G. Sutherland, Invt.

A. A. Sutherland, Delt.

PANEL DECORATIONS FOR CEILING.



"begin at the beginning." We may assume as a certainty, that the system of apprenticeship is gone for ever except in the out of the way districts, and much as we may regret it, we cannot hope to resuscitate it, so that, as common-sense men, it is our duty and policy, to cast about for something that will meet the necessities of the case, and conform to the exigencies of the hour.

We think this is to be found in Technical classes, of a character and scope to embrace, (1st) all the various preparatory and manipulative processes employed in the House Painting trade; from priming a door to enamelling it—(2nd), the imitative and mechanical arts, such as graining, marbling, sign writing, glass gilding and embossing; and (3rd), the Decorative Arts, including under that head, a good grounding in free-hand and geometrical drawing, in the various styles of ornament, with instruction in the history of the different schools of decoration, botany, flower painting, and animal and figure painting—and lastly, sound practical instruction in the executant portion of the work.

Something of this character must be done, or we must submit to take a third or fourth-rate position in the rear of our Continental competitors. These schools of Technical instruction should be under the supervision and control of the State. The best instructors should be obtained in the various sections, and a system of Travelling Scholarships established as incentives to effort on the part of the students. We confidently believe that were such a scheme as we have faintly outlined put in operation the most satisfactory results would accrue, at all events it is worth trying, and trying too, on a good scale.

From the causes we have pointed out, our young operatives are but half trained even in the manual part of their trade; whilst any knowledge they acquire of the higher departments of their business, they obtain in an incoherent and fragmentary fashion, with the result that it is quite destitute of the value it would have possessed had the students been properly directed and trained.

We sincerely hope, that in the new movement which seems to be stirring up the authorities to act, the claims of the House Painting and Decorating Trades will not be lost sight of, as a wider diffusion of correct knowledge amongst the members of the Trade, both operative and employer; would have a double influence, first on the members of the Trade themselves, and secondly, on the public for whom they cater, and any efforts to bring about a "so devoutly to be wished for consummation" will meet with our hearty sympathy and support.

MESSRS. ALEXANDER MCLEAN AND CO., Canterbury Wharf, Lambeth, manufacture what they describe as "non-efflorescent cement." The peculiarity of this cement consists in its ability to be painted immediately after it has left the Nowel, without any deleterious effects arising from it afterwards. It is used in the ordinary way of Keene's cement, and as far as our experience goes, it fully answers what the inventors claim for it.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 192.)

CHAPTER XVIII.—STAINING, GRAINING, AND INLAYING OF WOODS, &C.

PITCH pine has of late years come into extensive use for the furniture and fittings of churches and chapels, and for the doors, architraves, and other woodwork of private dwellings and public buildings. This wood is, in many instances, very beautifully marked in the grain, and is admirably suited for all purposes where strength and durability are desired. It is in its nature exceedingly resinous, and it is the fact of its being so thoroughly impregnated with resin which makes it so durable. As a rule, the practice is to varnish or French polish doors, &c., in the better class of dwelling-houses and mansions, when made of this wood. French polishing on pitch pine cannot be done under 2½d. or 3d. per foot, while varnishing may be done at 1d. per foot, giving it two coats of good varnish, so as a natural consequence the latter method will, and in fact does, prevail. Pitch pine has a strong tendency to quickly get darker in colour. This arises chiefly from the effect of the air upon the turpentine and resin contained in the wood (just as varnishes get dark by exposure), and therefore, except the work is required of a dark colour to begin with, we would advise, that no stains be used on the mass of the work, and that the varnish used be as light coloured as it is possible to be got, for if we varnish with a common dark-coloured varnish the wood will all the sooner become discoloured. The work is first coated with a glue size in order to partially fill up the pores of the wood, and make an impervious surface to prevent the varnish sinking into it. This size has also the effect of preventing the discolouration of the wood, through absorbing the varnish, and this is more especially the case if white pine or deal is used, it being softer and more absorbent than pitch pine. The glue size should not be too strong, or it will crack and chip, and it is better to give the work two thin coats of this than to risk failure by one thick coat. The two thin coats will sink into the wood and so have a firm hold, while the thick coat will remain on the surface and be easily chipped off. The size used should be free from any foreign matter, and carefully strained before being used. Another plan which dispenses with the use of size altogether, is to give the woodwork a coat of japanner's gold size thinned with turpentine, this sinks into the wood and produces a hard and firm body for the varnish to be laid upon. This method comes recommended to us, on the testimony of Mr. Heywood (of Messrs. Wilkinson, Heywood and Clark), whose experience is, that when done by this method, the varnish

becomes an integral part of the wood and cannot chip or peel off. Of course this process costs a little more than when size is used, but it is so little that it ought not to be a consideration in good work. When the work is to be French polished, no sizing is required. Many kinds of staining colours may be used for colouring pine, and any desired tint obtained, but except for the purpose of imitating inlaid woods, pitch pine or white pine should never be stained any other colour than the darker shades of its own natural colour, not necessarily to represent dark old oak, but to represent what it is in reality, pine stained dark. Simple staining solutions are the best, and as we have before stated, all these may be procured ready prepared, from Mr. H. C. Stephens, of Aldersgate Street, London, or from Messrs. Pontifex and Wood, of Shoe Lane, London.—Many very excellent stains may be got by using the ordinary graining colours, viz., Vandyke brown, raw and burnt sienna, ultramarine blue, &c. In using any of these stains, or in fact any water stains, it is a usual practice to put them on with a brush, and so leave them, but we have found the best plan to be as follows: If we want a dark oak colour, we use Vandyke brown or best Turkey umber with water, tolerably dark in shade. With this we brush over the wood without any previous preparation. We let it stand for a few minutes, then wipe as much of the colour off again as we can with a damp rag or cloth. It will then be found that a certain amount of the stain has sunk into the soft parts of the wood, and less so on the hard parts of the grain. By this plan, we bring out the grain or marks of the wood clearer and more distinct than when it is left from the brush alone. If the stain is not deep enough, another coat may be applied in the same manner. For a mahogany stain we use burnt sienna with a little Vandyke brown, then glaze over with Victoria lake; if a yellow stain, raw sienna; for a blue stain we use ultramarine blue, and by adding raw sienna to the blue we form a dull shade of neutral green; for a grey stain, blue black with a very small quantity of ultramarine added, and so on *ad infinitum*. All these are permanent colours, which is of course an important consideration. We could get more brilliant colours by using scarlet, crimson, or purple lakes, but these are fugitive colours, not fitted for use on any works intended to last. It will be understood that we are now speaking of staining woodwork in the mass, that is to say without imitating inlaying, although most of these colours may be used for that purpose. We here give a list of transparent and semi-transparent colours which may be used as stains.

Red Stains.—1. Burnt Sienna. 2. Logwood. 3. Burnt Ochre. 4. Madder Lake.

Yellow Stains.—1. Raw Sienna. 2. Saffron. 3. Gamboge.

Blue Stains.—1. Ultramarine Blue. 2. Indigo. 3. Cobalt.

Brown Stains.—1. Vandyke Brown. 2. Turkey Umber. 3. Black Japan.

Green Stains.—1. A mixture of Gamboge and Indigo, Gamboge or Raw Sienna and Ultramarine Blue.

Black Stains.—Wash over with Logwood Stain, then with water impregnated with iron rust.

In staining woodwork, especially the best white pine free from knots, we may imitate upon it most of the ordinary woods by preparing the surface first with size and varnish. We thus get an impervious surface upon which graining may be done in the same manner as it is done upon painted grounds. If it is carefully done, and with judgment and good taste, very good work may be produced. Whether it is advisable to do this or not, is entirely a question of taste on which we shall not enter here.

In connection with the inlaying of woods, it is often the case that tortoiseshell, metal, and ivory are inlaid with the wood, and we give in this place the methods we have used for this purpose. Tortoiseshell may be imitated, by first painting the article to be so ornamented, of a yellow colour (as near the lightest colour of the real shell as possible) as a ground colour. We now coat the ground over with a thin coat of black japan, and follow on after by another coat over parts of the work, laying it on somewhat in the form as seen in the real shell. We then put in the darker shades, having a piece of the tortoiseshell at hand, we may follow on with the darker shades until the various shades and markings appear as they are in the shell, this may be effected by using the japan of various strengths according to the depth of shade required, and by using a little clear turpentine and a pencil the light spots or markings of the shell may be closely imitated. When silver or gold leaf, or any other metal is used as portions of an inlaid design in combination with various woods the metal should always be outlined with black and the ground work for gilding upon got up as smooth as possible, in order that the flatness so essential to the success of this kind of work may be retained.

We now turn to our methods of imitating inlaid ivory for the decoration of cabinets, door panels, and furniture. Inlaid ivory is a very beautiful form of decoration, and the designs may be in any style according to individual taste, but the majority of examples are worked in the Renaissance, Chinese or Japanese styles; and figures, landscapes, trees, flowers, or simple ornament, are all suitable. We have two methods of executing this kind of work, the one upon a painted ground, and the other upon paper. In the first process the article to be decorated is got up as smoothly as possible in the polished enamel white, as before described in this journal, or it may be got up with any of the enamel varnish preparations, such as Albarine, manufactured by the Yorkshire Varnish Company, or the Albissima paint, a pure white enamel, or by the ordinary white enamel varnish colours, which all varnish makers send out. When the ground is ready, the design is traced or pounced upon it. We now take pure white hard varnish and a pencil, and paint in the whole of the design which is to remain white, keeping correctly to the outlines, and filling them up solid; taking great care to make the lines sharp and exact, as upon this the success of the work mainly depends. When the varnish is dry, we take drop black very finely ground in water —or the best vegetable black will do—this must be thinned down to a working consistency with weak

beer, and laid over the whole of the panel and ornament, using a flat camel-hair tin tool, levelling and spreading it evenly with the badger-hair softener until it is of one uniform thickness. This black should be used with only sufficient body to make a solid black, and not thick; bearing in mind that the finer it is ground, the thinner the coat of black may be. When it is thoroughly dry, we take spirits of wine and a soft camel-hair brush and saturate the whole of the ornament with it, gently brushing it until the varnish is dissolved and removed, bringing with it all the black which had covered the varnish, and leaving every part of the design of the clean colour of the ground. When this is carefully done, the mass of the black will not be in the slightest degree disturbed, and the design will now appear white upon a solid black ground, to imitate ivory inlaid upon ebony. We now take a fine sable pencil, and finely ground black in oil, and etch, or put in the detail of the figures, houses, ornament, &c., in fine lines or "cross hatching," slight, free, and effective, without much labour, in fact just such an amount of labour as we see in Chinese and Japanese works of this description. We now give the whole of the panel, &c., two or three coats of white hard varnish, or any other colourless hard drying varnish, clear pale polishing varnish is also very useful for the purpose, for although it may slightly dull the pureness of the white, that is not at all objectionable, as ivory itself if any age has a slightly yellow tint. Our second method of imitating inlaid ivory is one that is not well suited for works of any great size, but does admirably for small cabinets, work boxes, small fancy tables, backs of chairs, &c., and may be executed by ladies, or anyone having the necessary knowledge of drawing. We proceed as follows, for the purpose of making it clear we will take a cabinet made of common deal or white pine. We now make a drawing on fine rice paper, or on some of the best drawing papers, whatever paper is used the conditions required are a smooth even surface, a pure white colour, and uniform texture. On this we draw our design, paying regard of course, to the size of the panel or part of our cabinet it has to occupy; and the outline and detail should be drawn in with a quill pen and the best Japan ink, in a bold free style as recommended in the first process, the back ground may then be filled up with the same ink and a brush. The paper should now be cut to the exact size of the panel or other part for which it is done, and be secured in its place with gum or paste, care being taken to lay it perfectly level and without any bubbles (or if desired the paper may be put upon the wood before the design is worked upon it). We now give the paper one or two coats of clear size made from isinglass, which should be dissolved in water to the consistency of a weak jelly and used cold, it being, in this state, much better for our purpose than if it were used hot. It will now be ready for the application of the varnish as before described. It is always best to try the size and varnish upon a waste slip of paper, in order to make sure that no mistake is made, because if the paper is not sufficiently covered with the size, the varnish will sink into it and discolour it. Those parts of the cabinet which are not covered with the paper designs, may be sized, blacked, varnished, and finished in the same manner as the other parts. As a matter of course, the success or failure of works of this kind, will depend upon the skill and taste of the operator, the process affording a wide range for the exhibition of good drawing and original design with careful execution, resulting in works of an exceedingly beautiful and durable nature.

(To be continued.)

THE THIRD ANNUAL BUILDING EXHIBITION.

SECOND NOTICE.

Stand 32—The Sanitary Paint Company. Messrs. Griffiths Berdoe & Co. had a pretty appointed case, showing their special goods. Specimens of their silicate distemper in choice tints, were arranged on a very effective show card; while near to, were hanging painted specimens, showing the capabilities of the Sanitary White—or Griffiths's Patent White—for artistic purposes. We may mention that this Company supply ordinary paints in addition to their special manufactures, thus meeting all the requirements of the Painters' shop. We can also strongly recommend to the Trade the enamel paints made by Messrs. G. B. & Co. they are hard in surface, possess an excellent lustre, and are very free from gnits, qualities which should command attention anywhere. The Petrifying Liquid and Silicate Distemper which Messrs. Griffiths Berdoe & Co. manufacture, are well known and highly appreciated articles of use for the house painter and decorator. We gave in the June number of last year a coloured plate which demonstrated how available the Sanitary White is for decorative purposes, and we can add nothing fresh to what we then said. A convincing proof was given of the value of the petrifying liquid, by two common clay vases, one of which was coated with the liquid and the other left in its natural state, the one which was coated resisted the water which was poured into it completely, whilst it percolated through the unprotected one quite freely.

Stand 47—Mr. Henry Conolly, of Hampstead Road, could certainly claim to have the most conspicuous and prominent stand in the whole exhibition, from whichever point we looked, some part of his exhibit was to be seen. Mr. Conolly's claims on the painting and allied trades are considerable, as he caters for the requirements of plumber, painter, decorator, and gas-fitter. Ranged round the stand which was very extensive, was an inclined cornice, fitted with specimens of stained glass running from 9d. to 63s. per super foot in price, and from the simplest arrangement of tinted glass, to the most ornate and beautiful figure work. To be seen amongst Mr. Conolly's varied display, were a number of chandeliers very chaste in design and excellent in finish, while to descend to more common-place, but equally necessary and honourable goods, we were shown some water-closets with regulators and water-waste preventions very simple and efficient in their plan. The "Acme" Combined Needle, Plunge, Shower, and Douche Bath, is also a combination worth the attention of all Plumbers. Lavatories are a department on which Mr. Conolly bestows special attention, and in which he offers the Trade special advantages, full detailed particulars may be obtained from Mr. Conolly direct, by sending for his wholesale list.

Stand 53—Messrs. H. C. Webb & Co. Worcester. Messrs. Webb are pushing forward, to the attention of the building trade, their special Patent Wood Tiles, described under the somewhat formal title of Diachromatised Wood Blocks or Slabs. These wooden tiles are very effective, and seem to be better done than the specimens we saw last year, while the scope of the work is much more extended, if we are to judge by the very beautiful panel decorations we saw this time. As far as we can gather, the colours or stains are forced into the wood by hydraulic pressure, there being of course, some mechanical means of keeping each colour to its own proper position.

The effect is very admirable and the Patentees assure us it is permanent. For tile purposes, the colours are driven through end-ways of the grain, and such is the force exerted, the colour goes right through tiles an inch thick.

Stand No. 56—Messrs. C. Hindley & Son's display of Embossed Japanese Leather Papers and Panelled Woodwork was very choice, and well worth inspection. These Japanese papers are admirably adapted for dados, friezes, or for panelling purposes, and get a richness of effect at a very nominal outlay.

Stand 57—The Albissima Paint Co.'s Stand contained specimens of their now famous white pigment. This pigment is made for both outside and inside decorative work, the latter being more finely ground than the former; it is a non-poisonous paint, and is not subjected to discoloration from gases, like paints made from a white lead base. We can confidently recommend it to the attention of the Trade for either plain or ornamental work, its smoothness in working is remarkable, whether arising from it being more finely ground, or more closely amalgamated with the oil, we do not know, but it not only compares favourably with its competitors, but in most instances eclipses them entirely in this respect. We have heard it advanced against this paint that the proprietors suggest so many restrictions in mixing it—that it is too much trouble to think of them. All these can be obviated by adding a small quantity of varnish to the paint, which neutralizes any deleterious chemical action which might arise between the oxides and sulphides. We would draw attention to the fact that the Company made a special oil for use on all out-door work, in conjunction with the Albissima paint. This oil is a drying medium as well, and is sold at the usual rate of boiled linseed oil. The Company's Offices are 34, Lime Street, E.C., and any further information will be readily given on application to the manager, Mr. J. F. Stoy.

Stand 58—Messrs. Geo. Jackson & Sons are now so well known for their artistic plaster work, ceilings, friezes, and centre flowers, that comment from us seems superfluous; nevertheless, we are pleased to give our testimony to the excellence of their exhibits, both artistically, and in the sharpness and fineness of their execution.

Stand 62—Messrs. Jeffrey & Co., Paper Stainers, 64, Essex Road, had a very tastefully displayed stall or stand, round the walls of which were hung the papers for which this house has so justly become celebrated, "it goes without saying" that the exhibits were choice, and all in the best of taste, as we should expect them to be from such a firm.

Stand 68—Mr. W. Worrall, had a fine array of artistic work both for glass painting and mural decorations. When we mention that Mr. Worrall executed large commissions for the late William Burgess, A.R.A., the character of the work will be at once assumed. Some fine cartoons for figure work were here shown as also some well drawn and painted tiles for overmantels. Mr. Worrall now carries on the business formerly conducted by Messrs. Saunders & Co., Endell Street, Oxford Street, W.C.

Stand 72—Mr. Robert Ingham Clark's obelisk, is now getting quite a well-known feature of these exhibitions. A number of fancy woods are put together in the form of an obelisk, with the figure of Britannia on the top, the woods, of course being varnished to show the quality manufactured by this firm, which to judge by the specimen shown is of excellent body, and brilliant surface.

Stand 73—Messrs. Whitecombe and Emson, 1, Gresham Buildings, Proprietors of Hitchin's Patent Slab Plastering. We have in these columns before alluded to the valuable nature of this invention. The plaster is made in slabs and secured to the joists by screws, dispensing with the intervention of laths, and enabling work to be finished off immediately after plastering. This firm also execute door-heads, cornices, centre flowers, &c., in their patent composition.

Stand 76.—Messrs Avery & Sons, manufacturers of the New Empire Cloth Blind, exhibited specimens of their manufactures. The "Empire" Blind is light, cheerful, and artistic in appearance, and should be welcomed by numbers for its decorative qualities.

Stand 88—The Art Tile and Glass Painting Company's stand contained some specimens of stained glass and art tiles very worthy of careful attention and study. Some plaques for over doors were also cleverly painted and coloured.

Stand 91A—An exhibition of this kind without the presence of Mr. Stevens' stains, would be like London minus the Tower, or the "Zoo" without Jumbo. We are so familiar with the name and the articles that we naturally look for them first thing. We shall issue a specimen panel in the next number of the Journal showing the artistic purposes these stains can be put to. For staining floors and wood work of every description they are unsurpassed.

Stand 139—Messrs. Ransome & Co. of Essex Street, Strand, had a large display showing the multifarious character of their business; amongst other articles, the one most likely to interest the painter and decorator, was their damp-resisting solution which comes to us with numerous and trustworthy testimonials.

Stand 84—The Papier Maché Co. of Wellington Street, Strand, had a most extensive display. The Company has just recently passed into fresh hands, and a necessary and much wanted vigour seems to be imparting itself into the concern. The Company place at the disposal of the decorator a great deal of artistic material which the Trade do not use to the extent they might, it is worth while for master decorators to write for the catalogue (1s. 6d. each) which they issue. We may mention here that Mr. J. F. Fardon, of Deansgate, Manchester, is the Agent for the Company, in that city, and any communication made to him will receive the same attention as though sent to the head office.

Mr. Black has every reason to be satisfied with the continued popularity of this Exhibition amongst the Building and its concomitant trades. The interest which the public take in it is continuous, and increases rather than diminishes, each year; and that it pays the exhibitors to show their goods is proved, by the reappearance year after year of the same firms. The novelties of the exhibition are few, but we may look forward to the next year's display introducing some new features of especial interest to the Decorating Trade.

MEASURING-UP AND PRICING PAINTING WORK.

(ALL RIGHTS RESERVED.)

(Continued from page 179.)

CHAPTER IV.

THE methods of measuring which we have already described for the drawing-room, are, of course, applicable to all other rooms throughout the house, the difference only arising in the matter of price, which we shall deal with later on.

In measuring a staircase wall down, measure all straight lengths first, multiplying them by the height, and then take all angular parts of the wall and multiply the length by the mean of the height, this latter plan is also adopted in measuring woodwork, when we are measuring such a surface for instance, as the spandril of a staircase, which for illustration we will say is twelve feet long and nine feet high at the highest point, running down to the

floor at the other end, the mean height would be four feet six 12·0 × 4·6 = 54ft. Another method but not quite so ready an one, is to multiply the length by the extreme height then divide the result by two thus—12·0 × 9·0 = 108 ÷ 2 = 54 super feet.

Bannisters, are always counted, and charged for, so much each.

Stair-treads and risers, are treated in the same manner—the special nature of the work demanding a special price.

Stringings are usually measured and charged for lineally, not superficially, as there is little measurement, and much work, in them. It will be a safe plan to charge per lineal yard, the same price as is charged for the super yard for the other part of the woodwork.

Woodwork of an elaborate and intricate character, is, if measured, allowed a double measurement, to cover the extra labour involved.

In rooms where the woodwork is all to the front, that is, no back shutters to measure up, the fact is always taken into consideration in pricing.

Graining and marbling in good jobs, is always charged for distinct from the painting and varnishing. Graining, is charged for per square yard. Marbling, charged for per square foot. Inlaid marble borders or bands being charged for per foot run.

We have now said all that can be said pertinently, to the subject of measuring, and it only remains for us to append a list of prices for the various kinds of work which arise in house decorating.

THE JOURNAL OF DECORATIVE ART, HOUSE-PAINTERS' PRICE LIST.

CEILING AND WALL WORK.

DISTEMPERING—

New work, including preparation and one coat of distemper—

Ceiling-work.....2½d. to 3d. per sq. yd.
Wall-work.....2d. to 2½d. „

Old work, including washing-off, pointing, one coat preparation, and one coat of distemper—

Ceiling-work.....3d. to 4d. per sq. yd.
Wall-work.....2½d. to 3d. „

DURESCO AND SILICATE DISTEMPER—

New work, including one coat of the transparent liquid and two coats of the solid distemper—

Ceiling-work.....7d. to 8d. per sq. yd.
Wall-work .....6d. to 7d. „

Old work, including washing-off, pointing, one coat of preparation, and two coats of the solid distemper—

Ceiling-work.....8d. to 9d. per sq. yd.
Wall-work .....7d. to 8d. „

For large surfaces and quantities these prices might be reduced a little.

STRIPPING WALLS OF OLD PAPER, AND PREPARING—

The price for this work varies according to the number and class of papers on the wall from 1½d. to 3½d. per sq. yd.

PAPERHANGINGS AND PUTTING-ON—

These are generally charged for at so much per piece, as selected, and so much per piece for hanging. For estimating purposes the prices are generally fixed, and subject to alteration, and adjustment. In calculating how many pieces a room will take, reduce the wall space into square yards and allow 6 yards to the piece, which will give the quantity required. We can only put prices here for hanging from 1½d. to 3d. per sq. yd., or 7½d. to 1/6 per piece.

FLOCK PAPERS, PANELLING, AND ORNAMENTAL PAPERHANGING—

Are charged for according to the time it takes to fix them from 1/- to 1/3 per hour.

PAPERHANGINGS—

Machine goods are now made in such an excellent manner both as to design and colouring that they are rapidly superseding Block Goods for all but the very best jobs...3d. to 2/6 per piece without gold, 1/8 to 6/- with gold.

Block Goods, single prints .....2/6 to 4/- per piece.
„ in colours.....3/- to 10/- „
„ colours and gold.....6/6 to 30/- „

FLOCKS.—These vary according to the number of "flockings" they have received. We can commend Messrs. Cunnington & Co.'s goods, and also those sent out by Mr. A. J. Duff, as first-class in quality, and reasonable in price, which runs from 8/- to 40/- per piece.

(To be continued.)

REVIEWS.

*Polychromatic Decoration as applied to Buildings in the Mediæval Styles. By W. and G. Audsley.**

MESSRS. AUDSLEY are so well known for their efforts in the cause of Art education, and in the numerous works issued from their untiring and versatile fingers, that their name carries with it its own credentials and claim on our attention. Whatever we get from them, we may rest assured, is the result of careful observation and research, and well worth our attention, and the work immediately under our notice forms no exception to this rule. The aim which the authors have set before themselves, is clear and definite, it being an attempt to lay before the student of Decorative Art a series of examples, developed on a systematic plan, and directing itself to the elucidating, and illustrating in a sequential form, of mediæval ornament. The ground thus covered, is mainly dealt with from the stand-point of the Practical Decorator who has to deal with every-day work, and thus the work is the more useful to the Trade than it would have been had it wandered off into channels which are only navigated by exceptional men. Any house decorator, able to draw fairly well, could, with the aid of these designs, satisfy almost all the claims which would be made upon him, and to the more advanced members of the Trade who are accustomed to design their own decorations, the book is fertile in suggestions and hints, whilst the colouring is of the utmost value to all whether adept or tyro. The work is broadside post in size, and contains thirty-six coloured plates, divided as follows: Plate I showing colours and tints most suitable for decorative painting; plates II to V consisting of wall decorations based on the coursing lines of brick or stone work and ranging from the simplest to the more ornate treatment in these lines; plates VI and VII giving diapering ornament on vertical, horizontal, and diagonal lines, in simple, severe combinations; plates VIII and IX six excellent designs for stencilling in one tint based on brocade patterns; plate X the same character of work in gold on a coloured ground; plate XI a sheet of symbolic, heraldic, and ornamental powderings for walls, very useful and full of suggestion; plates XII to XVI a series of designs for diapers suitable for all the various positions they are likely to be demanded for; plates XVII to XIX showing a great variety of bands useful for many purposes; plate XX crestings beautifully coloured; Plate XXI medallions for walls and spandrils; plates XXII and XXIII giving a number of diapers suitable for rounded and spiral surfaces, as pillars, &c; plates XXIV and XXV two sheets of designs for delineating in flat colour, conventional colonnade and arcades for wall decoration; plates XXVI and XXVII a series of renderings in flat treatment, of finials, crockets and mouldings, in which the character of these several features is well preserved; plate XXVIII, animals and birds conventionally treated, is a most useful sheet, not merely in what it contains, but in the suggestions it gives for the treatment of an endless number of subjects; plates XXIX and XXX two sheets of designs for the decorating of roof timbers and ceiling spaces; plate XXXI designs for the

* Published by Messrs. Henry Sotheran & Co., 36, Piccadilly, W., price £3 3s.

decoration of the sides of the principals, spandrils, &c., whilst the last five plates are devoted to alphabets and initial letters. From the brief analysis we have thus given it will be seen that the work does, as we pointed out at first, actually cover the entire ground of ordinary church decoration, though much of it can be applied to domestic work also. The examples are well and harmoniously coloured, and the whole of the work with some unimportant exceptions could be executed in stencilling. Prefacing the plates are some short chapters on processes, mediums and manners of executing the work, all marked by sound practical knowledge of the subject, and containing much that is interesting and instructive. We hope with the permission of the publishers, to give our readers a selected sheet of the ornaments in some early number; meanwhile we heartily recommend it to the Trade as a work of great value, as a book of reference, and one which all who can spare the money ought to possess.

TEST OF GOOD ORNAMENT.—"I believe the right question to ask, respecting all ornament, is simply this: Was it done with enjoyment? Was the carver happy while he was about it? It may be the hardest work possible, and the harder because so much pleasure was taken in it; but it must have been happy too, or it will not be living. How much of the stonemason's toil this condition would exclude I hardly venture to consider, but the condition is absolute. There is a Gothic church lately built near Rouen, vile enough, indeed, in its general composition, but excessively rich in detail; many of the details are designed with taste, and all evidently by a man who has studied old work closely. But it is all as dead as leaves in December; there is not one tender touch, not one warm stroke, on the whole façade. The men who did it hated it, and were thankful when it was done. And so long as they do so they are merely loading your walls with shapes of clay: the garlands of everlastings in Père la Chaise are more cheerful ornaments. You cannot get the feeling by paying for it—money will not buy life. I am not sure even that you can get it by watching or waiting for it."—*J. Ruskin.*

TRADE INTELLIGENCE.

EXTRACT from letter received by Messrs. Wilkinson, Heywood, and Clark, from one of their travellers:—"B. and C., Nantwich, did some work for Captain M., amongst which, was papering with Oak Paper and varnishing with our Inside Copal Oak a large portion of the premises; the remainder of the paper was done with another firm's varnish. Recently an explosion took place, which so discoloured the walls as to make them quite black and unsightly. The owner was much against the expense of re-papering, and B. and C. were requested to try and cleanse the walls, upon their doing so that portion done with the other firm's varnish would not stand the cleaning. Our varnish stood strong soft soap, laid on with a brush and well scrubbed, and, on being well sponged with clear water, was quite hard and clean. It has now been given another coat of the same quality of varnish and is looking beautiful, which gives the greatest satisfaction.—March 16, 1882.

PARIAN CEMENT.—Known formerly as Keating's, is a quick-setting white cement, and produced by mixing calcined and powdered gypsum with a strong solution of borax, then recalcining, grinding, and mixing with a solution of alum. There For two qualities made, the "superfine," and the "coarse." are large surfaces, Parian cement is preferable to Keene's or Martin's, as it works freer, but the arrises made are not so sharp. Parian cement has the advantage that it can be painted or papered within 24 hours. For decorative work it is of much value; several colours can be mixed with it to produce uniform tints. It can be used for floors, and is said not to effloresce. The cement is prepared by Messrs. Francis and Co. It is not safe to paint on Parian for six or nine months, according to one writer, as the salt works through; but it is just to say the manufacture has been recently improved.

THE Fine Art and Industrial Exhibition now being held at Peterboro' is an undoubted success. Mr. Henry Beech, of Lincoln Road in that city, has a very choice display of Lincrusta Walton and Papyrotile Decorations. Mr. Ernest Beech, his son, also exhibits the design which took the first prize in our recent competition.

CORRESPONDENCE.

To the Editor of the Journal of Decorative Art.

Gentlemen,—Allow me to reply to the letter of Messrs. Cotterell Bros. of this city, appearing in your April number, to state that the "Measuring Card" issued by me, and of which a copy appeared in the March number of your valuable journal, was never copied from Messrs. C. B. by me or any one in my firm; but if it is (as they claim) their invention (a matter which I have no time or inclination to prove or disprove), they are for my part welcome to any "honour" connected therewith. Thanking you for giving publicity to what is beyond doubt a very useful table.—Yours faithfully,

THOMAS C. STOCK.

8, Victoria Street, Bristol, April 22nd, 1882.

P.S.—I shall have pleasure in forwarding one of my Measuring Cards to any of your readers on application.

ANSWERS TO CORRESPONDENTS.

J. W., BRISTOL.—We are not awarding any Certificates in the Section III. No doubt next year our scheme will be responded to in a more liberal manner, and we shall arrange to have a much better light on the works sent in. This year's exhibition was necessarily experimental and tentative in its character.

MESSRS. PEAKE BROS.—Try Liberty & Co., 219, Regent Street, or Messrs. Maple & Co., Tottenham Court Road, or Messrs. Shoolbred & Co. of the same place. They will no doubt be able to supply your wants.

SITUATIONS VACANT AND WANTED.

In order to meet many applications from subscribers, we have opened a Register Book, for employers requiring grainers and decorators, and a corresponding book for grainers and decorators requiring situations. We propose to make this a medium of communication between employer and employed free of cost.

Any master painter, therefore, in want of a grainer or decorator, sending their full name and address, with an additional stamp for reply, to the *Journal of Decorative Art*, head office, 1, St. James's Square, Manchester, will have their name entered into Book A, and will receive in reply a list of applicants for situations whose names are then on the books.

In the same way, decorators and grainers wanting situations will have their names entered in Book B, on sending us their full name and address with an additional stamp for reply.

We hope by these means to confer a benefit on all classes of our subscribers, and make the *Journal of Decorative Art* of increased usefulness to the trade.

We have now on Book B, the names of several applicants, grainers, decorators, foremen. Employers having a vacancy, can have the names sent on free of cost by enclosing a stamped addressed envelope for reply.

TO GRAINERS.—We have on our Register Book the names of a number of employers wanting grainers, a list of which will be sent on receipt of stamped addressed envelope.













W. Sutherland, Invt.

DESIGN FOR IMITATION INLAYING.



A. A. Sutherland, Delt.

DESIGNS FOR PATERAS.

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] JUNE. [PRICE 7D.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

(ALL RIGHTS RESERVED.)

CHAPTER XIX.—DECORATIVE PROCESSES.

STENCILLED ornament on ceilings and walls requires in many cases connecting and supplementing with lines in order to complete the design, and it is in fact a necessary part of almost all decorative stencil work. Lines in connection with stencil ornament are much better done with a flat fitch or lining tool and straight edge than if stencilled or done with the lining pencil, except the lines be broken into short lengths by stops, or are curved or irregular in shape, in these cases they may be cut in the stencil pattern or done by specially cut stencil lines cut to the exact curve or shape required. In lining with the fitch and straight-edge (which method we consider to be the best both for ceiling and wall work) there are two things necessary, viz., a good lining fitch or tool and a perfectly straight-edged lath as a guide. Of the former, there are several kinds in use, and of a necessity of different lengths and thicknesses, scene painters and some decorators like the lining fitch to be long in the hair, so that it will hold a larger modicum of colour, thus enabling the artist to run a long stretch of line with one dip of colour. Others again prefer a short hair fitch. The long hair fitch is a useful tool in practical hands, but requires to be used with great skill in order to keep the line of one uniform thickness throughout, and the slightest inequality of pressure will cause the brush to spread, and the line as a natural consequence will be irregular; for, if the extreme ends of the bristle are used, without direct pressure, the line will be only of the same thickness as the end of the tool. As we have before said, it is only highly skilled workmen who can accomplish this properly. A good lining fitch should be so made that when in use it shall form a line of exactly the same width as the width of the end of the brush. For instance, if we want a line one-eighth of an inch wide the tool should be made to run that width of a line and no more or less. This may be accomplished by making the lining fitch in the following manner. The bristles should be fixed in tin which tin is secured in the ordinary way to a flat wooden handle, of the usual length and strength. The bristles should project from the tin, about three-quarters of an inch, and be cut in a slanting direction, to three-eighths of an inch, leaving the bristles three-quarters at one side, and three-eighths on the other. The bristles should be close and compact, and firm in body, so that they will not spread to any appreciable extent, except, very hard pressed. A brush or tool of this make, will run a line of the exact width, or nearly so of the thickness of the quantity of bristles it contains. In using them we require to have them of different widths, and thicknesses, to run lines from one-sixteenth to half-an-inch in width. When lines are required to be run above that width, it is best to run two lines, on the outside edges, of the width of line, or band, required, and fill up the space between with a fitch or other tool. We had used in times gone by to make these tools ourselves, but some years ago we supplied patterns to an eminent firm of brush makers in London, and they can now be procured from most respectable firms. In this tool when properly made the bristles being closely packed together, do not spread, and when it is filled with colour and laid with its side against the straight-edge, with the ends of the bristles touching the wall or ceiling, it only requires to be kept steady and drawn carefully along to form a perfectly straight line, of uniform thickness throughout, and thus any person, with ordinary skill, and care, and practice, may soon acquire facility of execution, with it. Chalk lines should always be struck as a guide to place the straight-edge, both on walls and ceilings, except this be done mistakes are very liable to be made. The colours to be used in lining with a fitch, should be mixed so as to work freely. Thick colours will not run freely nor leave a sharp clean cut line, and in fact cannot be used with anything like success. It may also be observed here that in lining it is best to draw the lining tool along the straight-edge with a quick, steady motion, the line will be truer thus than if it is drawn with slow, hesitating motion. The best kind of lath or straight-edge is made of either bay wood or lance wood, and should be from two to three inches wide and about a quarter inch thick, if very long they may be made thicker, one edge should be bevelled to one eighth of an inch in thickness. It is sometimes advisable to fasten two thin pieces of cork on to the lath, at each end, in order to cause the lath to project from the surface, it is placed upon, so as to prevent the colour on it from getting upon the work, but if the straight edge is properly made and care is taken to wipe the edge after each length is run there will be no necessity for these pieces of cork. The most useful length for the straight-edge is about three feet, as it can be held by the workman with one hand while he uses the fitch with the other. On the other hand if the lath be too heavy, or above that length, it will require two persons to do the work of one. A very

useful plan, especially in lining on ceilings, is to have a tin dipper or "tott," made with a handle, or loop, through which a string or strap may be passed, and tied or buckled round the waist with the dipper containing lining colour in front a little to the right side. By this means the workman has his colour always at hand, and has no occasion to keep continually stooping for a dip, which causes much unnecessary labour, and in many cases the cost of a boy to hold the pot with the colour. The lath or straight-edge should be continually wiped, in order to avoid soiling the work. Some years ago a very simple and useful invention was patented for lining with the pencil. The invention consisted of, first, a straight-edge having a slot or groove cut on the opposite side to the bevelled edge, which is thicker than the ordinary straight-edge. This slot runs the whole length of the lath, about a quarter of an inch from the top edge, on this edge two brass pins are fixed, one at each end of the lath, it is also divided into inches and parts on one side, which is, although not necessary to the working of the invention, a very useful addition. The second part of the invention consists of a small brass instrument, having one of its parts made to fit in and run along the slot or groove in the straight-edge; the other part is so arranged that a pencil stick may be fitted into it by the aid of a small screw turned by the hand. The method of using is as follows. The straight-edge is placed upon the work to be lined with the heads of the two brass pins exactly upon the chalk line previously struck on the ceiling, which pins act as guides for that purpose. The pencil being fixed in the brass instrument is then charged with colour, and the projecting tooth of the peg is placed in the slot or groove, and drawn along in the usual manner. The great advantage of this invention over the old system lies in the fact of the pencil being kept steady, and the line perfectly straight, by the guiding power of the slot or groove, when parallel lines have to be run they will be much more correctly done with the aid of this simple invention than by depending solely upon the eye as a guide. Another advantage which may be claimed for this invention lies in the fact that persons who have not had much experience in lining may run straight lines with it. Lining with the pencil is one of those things which cannot be done well without a very large amount of practice, and there being a large proportion of workmen who occasionally have to do lining without that advantage, to such this invention will be a great boon.

Fitch lining and pencil lining differs also in the fact that in running light coloured lines on a dark ground, the pencil will leave a much heavier and solid body of colour than is possible to be done with the fitch. But for lining upon walls and ceilings the fitch is the best tool in every respect. Lining pencils differ from all other pencils in having a square end, being made with the hair considerably longer than any other kind. They are generally about $2\frac{1}{2}$ inches long in the hair, and of various thicknesses, according to the width of line required to be done with each. Sable hair, of which these, and, in fact, all the best pencils used by the decorator or artist, are made, is obtained from a species of marten, but differs from the marten hair proper in having a strong spring, and fine soft point.

Cheap sable pencils are usually made of sable and marten hair mixed, or sable and dyed camel hair. The chief supply of the best sable hair is obtained from America, although large quantities also come from Russia, but the latter is of much less value for artistic work. The red sable is obtained from a very different animal. It is a much stronger hair than the others, and being less pliable is not so reliable for making good pencils. It is, however, of great service in manipulating heavy pigments, such as white lead, vermillion, &c. Our supply of red sable is obtained only from Russia and Siberia. The high price of sable pencils arises from the fact that it is only the hair on the tails of the animals which is available for the manufacture of pencils.

(To be continued.)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

Continued from page 197.

Chapter XVII.—The Bordure.

THE origin of the Bordure or Border, spelt indifferently both ways, is certainly of great antiquity. It is supposed by some heraldic writers that it had its origin in the romantic story of a young lady who assumed the attire and armour of a knight, went forth and fought at jousts and tournaments, conquering all with whom she came in contact, until she met with a knight by whom she herself was conquered. When the knight found that his opponent was a woman he took off his purple scarf and bound it round her shield, and of course they were married and lived happy ever after. Whether this be the true explanation or not, it is extremely probable that this and other ordinaries had their origin in some such romantic story. Many of the crests and mottoes of ancient families have a somewhat similar origin. An instance is adduced in the history of the family of the Duke of Hamilton or Marquis of Abercorn, who trace their genealogy to very high antiquity, and is recognised in the person of James Second Earl of Arran in the kingdom of Scotland, and the first Duke of Chatelherault of the kingdom of France. Crest—an oak tree proper. Motto—*Sola nobilitat virtus*, virtue alone is nobility. The crest and its motto are emblematical of the following memorable event. Sir Gilbert Hamilton, ancestor of the family, happening accidently, at the court of Edward II, to speak in praise of Robert Bruce King of Scotland he received a blow from John de Spencer, a favourite knight of King Edward's for which insult he challenged him, and killed him in an encounter next morning, and to avoid the consequence of this act, fled to Scotland. He was

DIVISIONS OF THE SHIELD.

THE BORDURE.



FIG. 65.—Or, a Bordure Purpure.



FIG. 66.—Or, a Fess Cheque, Argent and Azure, within a Bordure engrailed quarterly, Gules and Sable.



FIG. 67.—Quarterly, Azure and Argent, a Bordure countercharged.



FIG. 68.—Sanguine, a Bordure Argent, with verdoy trefoils, slipped proper.



FIG. 69.—An Orle Azure.



FIG. 70.—Argent, an Inescutcheon, within an Orle of Martlets, Sable.

THE PALE.

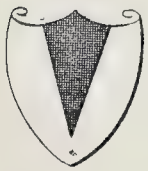


FIG. 71.—Argent, a Pile Sable.



FIG. 72.—Ermine, two Piles issuing from the dexter and sinister sides and meeting in base, Azure.



FIG. 73.—Argent, three Piles meeting in base, Gules.



FIG. 74.—A Pile between two others reversed, Sable.



FIG. 75.—Ermine, a Pile, wavy, Bendways, Vert.



FIG. 76.—Sable, three Piles in Bend, each point ensigned with a fleur de lis, Argent.

*

however immediately pursued by Edward's warriors, and in passing through a wood, he and his servant, in order to disguise themselves, exchanged clothes with some woodmen, and taking their saw set to work to saw through the butt of an oak tree. While thus employed their pursuers were passing by, Sir Gilbert observing his servant earnestly watching his enemies, cried out loudly "Through" to warn him and prevent them from recognising his countenance. Sir Gilbert adopted the oak as his crest, which has ever since been continued in the family. Sir Gilbert was well received by King Robert Bruce, who to compensate him for the loss of his English estates presented him with the Barony of Cadzow, ever since called Hamilton in Lanarkshire, where he and his posterity have flourished for near six hundred years. A similar instance is related of the De Traffords of Old Trafford near Manchester and many other ancient families.

The Bordure should be shaded, that is raised from the shield as in Fig. 65, Or, a Bordure purpure, as in Fig. 66, Or, a Fess Cheque, Argent and Azure, within a Bordure engrailed, quarterly, Gules and Sable, also Fig. 67, Quarterly Azure and Argent, a Bordure countercharged.

As the Bordure admits of charges being placed upon it, its outlines may be composed of pieces of several tinctures, as at Fig. 68, Sanguine, a Bordure Argent, with *verdoy* trefoils, Or, eight trefoils slipped proper. This word *verdoy* is a corruption of the French *verdure*, and means a green border, or *orle* of green vegetables, as plants, flowers, or leaves. In ancient blazonry of arms, we also find an *enaluron* (en orle) of birds; and *enurny* (orne) of beasts, perflew of furs, and entoyre (entoure) of inanimate things. The breadth of the Bordure is generally a fifth part of the shield, and its tincture ought to be a contrast to the colour of the field. The Bordure has no diminutives, but when removed from the circumference of the shield, it takes the name of orle, from the Latin *ora*, a coast or border, orula, a small border, from which the French have derived their word ourlet, a hem or selvage, as Fig. 69, Or, an orle Azure.

In Fig. 70 is represented an Orle of martlets, and the arms are emblazoned thus: Argent, an Inescutcheon within an Orle of martlets Sable, which may also be expressed as Sable, a Bordure Argent, charged with eight martlets of the first, that is supposing that the Bordure has spread beyond its usual breadth to give room for the charges upon it.

Another offspring of the Bordure is the Tressure, a subordinary of great dignity and antiquity. This is the border which surrounds the arms of Scotland, but that is a double Tressure, and is said to have been granted to the Scotch Kings by Charlemagne on the occasion of his entering into a league with the then king. The Tressure is half the width of the Orle, and is generally termed flory and counter-floury, that is the flowers, &c., that lie on the Tressure are alternately inverted, pointing different ways in succession. It may be double, and even treble. The name originates with the French *tresser*, to weave, twist or plait. It was a light simple ornament of silver or gold twist, elegantly wrought around the principal bearing of a coat of arms.

The Inescutcheon.

This subordinate ordinary consists of a small escutcheon, borne within the shield, in the Fess point, according to some heralds, as in Fig. 70, while others give the name to all kinds of smaller shields borne as charges, such as the arms of the Scotch family of Hay, viz., Argent, three Inescutcheons Gules.

The Pile.

The origin of the term Pile as applied to a subordinary is involved in doubt. Some authors give it as from the piles upon which bridges are built, some from the French *pile*, a heap, a pile of wood, a funeral pile, some again attribute it to a game played by the Greeks and Romans *pila trigonalis*, the three-corner ball, so designated not from the form of the ball which was round, but from the position of the players, who were three in number, and formed an angle, as in the pile, the man who throws the ball standing at the point and the others at the base, who repel or catch it. Whatever it is derived from, the form of the pile is an isosceles triangle pointing from the top, from which it issues to the base of the shield in a perpendicular direction, as at Fig. 71, Argent, a Pile Sable. As to the colour or tincture, it follows the general rule and may bear any colours that are opposed to each other, and also any charges, as in the arms of the Seymours in which a Pile Gules, is charged with the three lions of England. Fig. 72, Ermine, two Piles issuing from the dexter and sinister sides and meeting in base Azure. Fig. 73, Argent, three Piles meeting in base Gules. Fig. 74, a Pile between two others reversed Sable. Fig. 75, Ermine, a pile, wavy, bendways, Vert. Fig. 76, Sable, three Piles in Bend, each point ensigned with a fleur de lis Argent.

ALPHABET OF HERALDRY.

COUPED, is said of the head, or any limb, cut off from the body quite smooth. It is also used to denote crosses, bars, &c., when they do not touch the sides of the escutcheon.

COUPLE-CLOSE, one of the diminutives of the Chevron.

COURANT, is said of an animal running.

COWARD, this word is applied to a lion or any other animal, either rampant, passant, or in any other position, with its tail between its legs.

CRAMPETTE, a small cramp iron, also the shape of the scabbard at the bottom of a broad sword.

CRAMPONEE, a cross that has at each end the shape of a cramp iron.

CRENELLE, a word used by some heralds instead of embattled, to express the outlines of any charge, crenellated, drawn like the battlements of an ancient tower.

CRESCENT, the half moon with its horns turned upward, which is the proper position of this charge in coats of arms.

CREST, the figure placed above the helmet in an achievement.

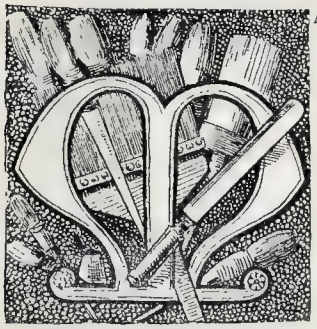
CRESTED, is said of a cock, or other bird, whose crest or comb is of a different tincture to that of the body.

CRINED, is applied to any animal whose hair is of a different tincture to its body.

CROSSLET, a cross crossed again at a small distance from each of the ends.

(To be continued.)

A VISIT TO MESSRS. CROWDEN AND GARROD'S PAINTING BRUSH MANUFACTORY.



MAN has been described as a tool-using animal and the definition, aptly, and tersely, marks out the broad distinction which exists between the human and the brute creation.

Take away man's tools and he appears as the most helpless of God's creatures, give him weapons, and no secrets of Nature are secure from his ardent search, no difficulties so great as to daunt his enterprise. Destitute of tools he is helpless, with them he is almost omnipotent: by their aid he traverses the trackless ocean, brings distant lands in communication with our own shores, spans the mighty torrent, pierces the deepest depths of Nature, explores the mysteries of aerial currents, counts the stars—and calls them by their name, builds palaces of wondrous beauty and cunning workmanship, like those old towers of Camelot—

> "Built by old kings, age after age. So old
> The king himself had fears that it would fall.
> So strange, and rich, and dim"—

and in brief, maintains for himself, the proud position assigned to him in the record of the Old Book, that "God created man in His own image."

No surer test of the advance of civilisation and the progress of nations, can be named, than the fashion of their tools and implements; and their advance can be accurately gauged by a careful examination of the tools they employ in their daily avocations.

The Syrian husbandman of to-day, contentedly ploughs his fields, with instruments similar to those in use when Abram went forth from Ur of the Chaldees, nearly four thousand years ago, while his western compeer breaks up the ground with machinery which embodies the advance of knowledge of the nineteenth century. The introduction of machinery into many of our manufactures, has wrought what can be described by no other term than a revolution, ensuring for us an accuracy and uniformity attainable by no other means; but whilst this is so largely the case in general trade, the special business of brush making is the same in its essential conditions, as it was a century ago; that is, in the methods of making—of course there have been many improvements in the shape and style of the brush, of which more anon, but the process is so dependent on conditions which exist apart from machinery, that it is not likely that the mode of making at present adopted, will ever be superseded by any mechanical means.

The homely proverb which passes current amongst us, that a bad workman always lays the fault on his tools has a large substratum of truth in it, but it has also a reverse side to it which should not be lost sight of, that, no matter however good a workman a man, may be, if he has indifferent tools to work with, he cannot produce very successful work. These preliminary remarks bring us to the main object of our article which is to describe a visit recently paid to Messrs. Crowden and Garrod's new premises, and the various processes through which a brush has to pass before we receive it in a condition fit for priming a door or cutting a sash.

But first as to the firm, whose enterprise and industry has made their name famous the wide world over. Messrs. Crowden and Garrod's brushes and trade mark are known throughout the British Empire, wherever painting is done. The firm was founded in or about the year 1760 under the cognomen of Thomas Kent and Co. In the year 1820 Messrs. T. Kent and Co. erected the original premises recently vacated in Falcon Square. In 1847 the name of the firm was changed to its present pseudonym of Crowden and Garrod, although for some years past there has been only Mr. James and Mr. Robert H. Crowden actually in the concern.

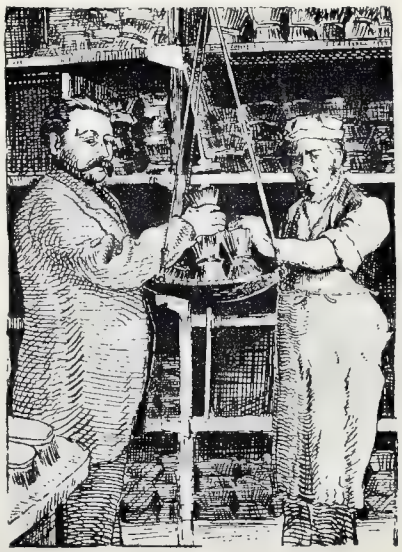
The expiration of the lease in Falcon Square furnished a good opportunity of removing to premises better adapted to the increased demands of their business, and having secured a commanding position in the main thoroughfare in the "Borough," Messrs. Crowden and Garrod determined upon erecting premises which should combine all the modern appliances and conveniences and increased accommodation.

The site chosen is situated at the junction of Southwark Bridge Road and Southwark Street, a position admirably adapted to the wants of the business Messrs. Crowden and Garrod do. The building is in the Bastard Renaissance style, popularly known as "Queen Anne," and forms a handsome addition to the numerous fine buildings to be found thereabouts. Entering the premises from the main entrance at the junction of the two roads, we find ourselves in a vestibule framed with pitchpine, varnished; to our right, is the office of the general manager, Mr. Furse, whilst to our left is the counting-house, a fine, airy, handsomely appointed place, where is done all the extensive correspondence and clerical work of the establishment, beyond this again lies the private offices of the two principals.

On the same floor to the back of the rooms just named is the packing room, a large commodious place fitted on all sides with shelves and compartments numbered to correspond with the orders on hand.

Into these various compartments, drift the goods from the different departments until the order is complete, when they are taken out, packed up, and despatched to the four quarters of the globe.

Here, we may digress for a moment or two, to notice the multifarious and varied character of the business which Messrs Crowden and Garrod engage in. Not only are they manufacturers of Painting Brushes, and brushes of all kinds



WEIGHING OUT IN BULK.

for domestic and general use, but they manufacture, and vend, almost everything of a sundry character to be found in an ironmonger's shop. Knife machines, mats, mincing machines, washing boards, knife boards, every kind of domestic brush from a tooth brush to a "bass" broom, polishing paste, black

lead, bottle goods, clocks, knife boxes, wood taps, lanterns, turned wood of every description, thermometers, amateur's tools, cricket bats, &c. &c. too numerous to specify in detail, but all testifying to the wide ground covered by the transactions of the firm and to the constant and vigilant attention which such a business must exact from all concerned in it.

Taking the establishment in a systematic manner, we descend first to the basement, which is the storehouse of the heavy goods, some of which we have enumerated; here too is the bristle room, a department not very extended in its area, but representing a very great value. As much as £10,000 to £12,000 worth of the raw material being stored in this small compass at times.

It is chiefly the colder climes that contribute to supply the brush maker with the bristle for his brushes, St. Petersburg, Siberia, Kamschatka, Vilikiluki, and Okatka all sending their quota.

The first floor is devoted to the general sundry goods of a light character and small description, proceeding up stairs we come to the second floor, which is the warehouse department of the finished brushes. It being principally occupied with painting brushes, or should be—for the difficulty with Messrs Crowden and Garrod is, not to get rid of their goods,—but to keep pace with the demand. Such a thing as getting beforehand with their goods being almost an impossibility. As a description of the method of making the brush is what will most interest our readers, we will at once describe to the best of our ability, the various processes gone through before the trade get possession of the finished article.

On the same floor with the painting brush warehouse is the workroom, where the brushes are made. The first process is weighing out, our illustration, pictures Mr. Murphy, the manager of the factory department, and the first hand, weighing out the bristles in their proper proportions, behind on the shelves are the bundles just as they come out of the cask; the way in which these bundles are tied up is very remarkable, for if any amateur, (under the impression that it is easily done) attempt to tie one up, his impotence is immediately made manifest.



SORTING.

The sorting, is the first actual process in making of the brush, this is done by a very simple plan, the deftness of the workman being the main element in it. After the various bristles have been distributed in their proper proportions, the workman takes a handful and levelling one end of the bundle, he places them against a gauge of various lengths, and takes out the longest hairs corresponding to the top mark in the gauge, this he repeats till each large bundle, is separated into smaller bundles, of lengths varying from four to eight inches—



DRESSING.

from the description this would appear a tedious process, but so quick are the men through constant practice, that they do it almost intuitively, and get rid of their work in a manner astonishing to the uninitiated.



MAKING A KNOT.







THE JOURNAL OF DECORATIVE ART PRIZE COMPETITION.

THE WILKINSON, HEYWOOD, & CLARK PRIZE.

SECOND PRIZE. DESIGN BY RD. GLAZIER, KING'S ROAD, ROCHDALE.

After the sorting, comes the dressing, as represented in our illustration. The workmen takes a handful of bristles of different kinds and runs them through the upright comb several times, this causes them to be "turned over" each time, and the hairs are equally distributed through each lot—another process somewhat similar is shewn in illustration No. 3, this is known technically, as "dragging," though in structure the same as the comb in our last illustration, it is actually different, inasmuch as the teeth are adjusted to certain thicknesses of the bristles, the bristles are held by the workman tightly between two brush handles, and dragged through the comb towards him, the thinner bristles come through, while the thicker ones remain held by the teeth. This process is repeated till the bristles are separated into groups of varying strengths. The thicker ones are set apart for selling to saddlers and shoemakers and the finer ones kept for brush purposes. The next operation towards making a brush is to weigh out the requisite quantity of bristle for the different sizes of brushes or tools. When this is done, each lot is laid separately on the bench, ready for the operation of "making a knot;" our woodcut shows one of the workmen busily at it, the hair is gathered up in one hand as shewn, and with magician-like rapidity the knot is bound up ready for affixing to the stock or handle. After the knot of bristles is attached to the handle, the brush is structurally complete, and only requires finishing off. The first process towards finishing is the washing, which is done in large cisterns, adjoining these are some stones, on which the brushes are next ground to give the required bevel and finish, to the ends of the hairs. When these two operations are completed the brush has a wild unkempt appearance distressing to behold, to those accustomed only to see the finished article, and one wonders, how those hairs which are simultaneously addressing all points of the compass, can be reduced to the orderly precision we are accustomed to see in them. This is effected by the brushes being tied up the entire length of the bristles, tightening down to a point towards the end; in this bound state, they are all placed in the bleaching chamber and allowed to remain till they are bleached, when they are transferred to the drying room and kept there till they are dried by the heated air: after this the handles are finished off and the goods are ready for market. The foregoing description applies to the painting brushes and sash tools, the whitewash or nailed stock brushes, being a little different in the final methods of making.

Our fifth illustration, shews the workmen busily engaged fixing the knots on to the handles. We think a special word of praise is due to the three hands we now depict, as they were so absorbed in their work as to resist the temptation of looking up from it whilst our artist was photographing them for the purpose of this illustration. The stock of the brush is very familiar to our readers, it is held firmly in a vice and the knot of bristle divided equally on each side of the stock, and then bound tightly on to it by whipcord or wire, the cuttings in the stock allowing the wire to be pulled tightly round the bristle.

Our space will not admit of our enlarging on all we saw and were interested in, but before concluding we must notice one or two specialities which are associated with Messrs. Crowden and Garrod's manufacture; the first is the seamless copper band, which is woven in some way, so as to make a complete cover for the bristles and avoid the danger of coming undone. Another, and very important improvement is the "Patent Shoulder" which is found in their oval one-knot paint brushes, and two-knot distemper brushes, the introduction of this shoulder makes it impossible for the "bridling" to come off, thus ensuring a permanency and security which cannot be obtained by any other means.

The goods sent out by Messrs Crowden and Garrod and marked with their "Falcon" stamp, are all of sterling quality and to be relied on for excellence of finish and material. We trust that the little description we have thus been enabled to give of the process of their manufacture will be both of interest and service to our readers and subscribers. We cannot do better than advise our readers who have not already done so, to write for one of their paint brush catalogues as they will find in them much of service and interest.



NAILED STOCK BRUSHES.

Wherever the firm have exhibited they have obtained the highest awards, a fact which speaks volumes, and their success is due to the unremitting care with which the principals attend to all the minute details of the business, and to the vigilant oversight which they bestow on the general operations of their house.

I HEARD a curious discussion on the vexed question of house decoration the other day. An artistic friend was contending that a room should be arranged so as to represent nature as far as possible. Thus the carpet should be of a mossy, or dusty, or old leafy colour; the lower part of the walls somewhat like the undergrowth of a thicket, woody stems, ferns, or thick rushes, and deep grass; this should form a dado; then above, leafy branches, and flowers, or birds, might be seen, gradually carrying the eye to the ceiling, which certainly ought not to be an absurdly glaring white, but cloudy, and of a sky-like tint of colour. Mrs. Haweis, who writes on such matters, goes so far as to have a deep blue ceiling in her drawing-room with golden stars all over it. This, I think, too strong a piece of conventional art, but, in the discussion of matters like these, something is learned, and the happy and beautiful medium arrived at.—*London Letter.*

OUR ILLUSTRATIONS.



OUR Illustrations this month consist of two double pages, the first showing the design which took the Second Prize in the recent "Journal of Decorative Art" competition. We commented on this design in the April issue of our Journal, and must refer our readers to what we then said for a description. The second page of illustrations contains a design for a panel suitable for imitation inlaying, with the Greek honeysuckle as its *motif*. The four other designs are for patterns suitable for many purposes, which will best suggest themselves to the individual reader.

In our July number we shall issue a page, printed in tints, showing the First and Second Prize Designs in Section II., Class D, in our recent competition; and in the August number we shall give a double page of designs, magnificently printed in gold and colours, of Dado, Frieze, and Door Panels, being the First Prize Designs, Section I., Class A, in the "Journal of Decorative Art" competition.

In consequence of the great cost which this latter plate will involve, we are compelled to advance the price of the Journal (for that issue only) to ninepence; post, tenpence.

ART NOTES.

THE merits of the question of veneering and graining are admirably discussed in a recent article which appeared in *The Architect*, and from which we subjoin an extract. We quote it with considerable satisfaction as it embodies and supports the views which we express in another part of this number, and which we may define as the "common sense" of the question.

"Graining and marbling, of course, are quite an inferior art to veneering, and, to speak plainly, more directly a make-believe. A slab slate table, for instance, enamelled to imitate Aberdeen granite, has been known to deceive for more than a moment the expert eye of an Aberdeen stone polisher; and it is quite a common thing for a sufficiently subdued imitation of satin-wood or mahogany to be mistaken for veneer, or an unpretentious panel of griotte or malachite for the real marble. So cleverly, indeed, do grainers accomplish their work—when they permit themselves to operate with due reserve—that vast surfaces of wall, as in Buckingham Palace and Stafford House, are found panelled out in the likeness of costly materials with such excessive liberality and faithful resemblance as to create in the mind of a modest stranger the feeling that he is being made a fool of. Nevertheless, for common woodwork in a common house, setting aside for a moment the fashion of green paint and other sad colours which happen to be in vogue, what can be more satisfactory than well and discreetly executed wainscot graining? Let us bear in mind one thing that seems to be a good deal overlooked at present. Why is a woman's cotton dress printed with a pattern? Not for the sake of the decoration—a plain colour would often be far more acceptable; but for the simple purpose that it shall not 'show the dirt.' The object of graining a door is, in like manner, that it shall not be too readily soiled and stained. Our popular colour decorators know only too well how far this vulgar rule applies to the melancholy tints of painted woodwork which it is their function just now to make supreme. Perhaps we may put the case of graining and marbling thus:—When the imitation is too pretentious for possibility, it is no better than the too majestic mimicry of the stage, where the jewels are glass and the gold tinsel; but so long as it is kept within the limits of common sense, for the mere purpose of producing a decorative finish by confessed imitation, the better that imitation is the more graceful is the effort of workmanship, and the more to be encouraged as a thing that ought not to become a lost or even a degraded art. As for the varnished dealwork now so common (in every sense) although it would be quite an error to disparage it in principle, one may safely ask whether, in order to make it really presentable to a fastidious eye, it does not require much better workmanship than is customary, and better material than it would pay to use."

Americans are fully alive to the value that a knowledge of drawing possesses in any scheme of education, and during the past few years strenuous efforts have been put forth to cope with the increasing demands of the country. M. Regamey, a Parisian painter, who was sent out to America by the French Government to enquire into and report on the American system of Art Education, more especially in its bearings on the "applied arts," has just published the results of his tour of inspection. The tendency and aim of the American system is to produce educated artizans, men who do not waste their energies on endeavouring to become modern Michael Angelos, or Raphaels; but who are devoting themselves to turn to art purposes the common place articles of every day use. We have frequently pointed out that this is the true and highest use our art schools can occupy themselves in, for by introducing art feeling, taste, and judgement, into the articles with which we are surrounded day by day, the educational influence is widespread and far reaching. We have picture painters *ad nauseum*, but of real decorative artists the demand is greater than the supply. In America, drawing is made obligatory in all the schools, and every town of 10,000 inhabitants is compelled to support an industrial art school. Out of this redundant energy and enthusiasm for art, great things must come; and the future development of American art is looked forward to with eager interest.

That old veteran George Augustus Sala, gave good sound advice the other day to the students at Nottingham when he told them, that if any of them got under the idea that their talents were great, and that Burlington House was the true goal of their efforts; he would advise them to dismiss such ideas from their heads; for said he, "If you are destined to be great painters, the faculty will one day assert itself; but for the present stick to design, be it drawing designs for wall papers or lace curtains"—valuable words these.

An interesting exhibition of Scandinavian Art is now in course of preparation at South Kensington.

Photography may be used to detect restoration or tampering with an old picture. The discovery was made by accident. Signor Morelli, a very admirable draughtsman, was some time since engaged in taking photographs of the pictures in our own National Gallery. Looking at the first proof of one of them, a well-known Madonna,—there was a disfiguring blur over the forehead. "Oh," said the photographer, "that is a first proof,—I will set that to rights in the negative." So, no doubt, he did. But it was the first proof that was of value. Visiting the Gallery to refresh remembrance of the picture, no such blur was to be seen,—to be seen at the first glance. But the magnifying glass showed, on careful inspection, that the restorer had been at work. He had repaired some casual damage, and done it with a skill that reproduced the colour, the touch, and the texture of the painter. But he had not used the same pigments, and this was instantly detected by the subtle chemistry of light.—*Builder*.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

(ALL RIGHTS RESERVED.)

(Continued from page 199.)

CHAPTER XIX.—GRAINING, MARBLING, &C.

WE have now to describe the various methods and systems of imitating marbles. But before entering upon the technical portion of the subject, we have a few words to say in reference to the use of imitations generally. We are led to take this course from the fact that an impression seems to be prevalent amongst a certain class that all imitations are to be condemned as shams and under no circumstances to be allowed. Mr. Ruskin has said, "There is no "meaner occupation for the human mind, than the "imitation of the stains and striæ of wood and mar"ble. The grainer must think of what he is doing, "with veritable attention and care, and occasionally "considerable skill, is consumed in the doing of a "more absolute nothing than I can name in any other "department of painful idleness. I know not any"thing so humiliating as to see a human being with "arms and limbs complete, and apparently a head, "and assuredly a soul, yet into the hands of which "when you have put a brush and a palette it cannot "do anything with them but imitate a piece of wood "or marble. It cannot colour, it has no idea of form. "It cannot caricature, it has no idea of humour."

Now we individually yield to no man in respect and admiration for Mr. Ruskin's talents and teachings in the realms of Art, in its widest and truest sense, but with all due deference to his services to Art, we cannot help characterising the above description as a piece of the most outrageous nonsense, and feel bound to protest with all our might and all our strength against such (to say the least of it) foolish teaching, notwithstanding the high authority from which it proceeds. The more so that there are a goodly number of our architects and decorators who, either not having any mind of their own, or not being able to form an independent opinion for themselves, blindly follow their leader, and in avoiding Scylla, fall into Charybdis. They cannot comprehend the fact that even a great mind, in its search after truth, and in its enthusiastic desire to bring about a better appreciation of all that is good and true in art, may be led into error from the very intensity of its own enthusiasm; but these people have unbounded faith in their oracle, believe that everything however absurd, which falls from his lips must be true, and consequently rush into such an extreme of Ruskinism that they prefer the most outrageous ugliness to the greatest beauty if that beauty is an imitation. Architects, from their position in society, are able to do much good or much harm in influencing public taste; therefore it is the more necessary that such fallacies should be inquired into and dispelled. We confess we cannot see the meanness of being able to make a good representation of either wood or marble, if the same be well executed and in its right place. All art of whatever kind, is imitative, and even in its highest walks, when the powers of the intellect, the religious faith, or the mind and thought of the painter may be most clearly seen in his work, he must still draw inspiration and form from some natural type, however much he may afterwards idealise the form and sentiment sought to be expressed, and it is a questionable point with us whether we do not in nine cases out of ten attribute sentiments and expressions to a representative picture which the artist never dreamt of when he painted it. Take any great picture and no two minds will read it alike. In many of our best paintings we find imitative art wrought out with such an amount of elaboration and to such perfection that one could almost fancy the rich satins and brocades would rustle if we touched them, that the vessels of gold, silver, and bronze would ring out if struck. The landscape painter and the flower painter imitate natural objects with all the skill they are capable of, and the nearer the imitation—the more true to nature the representation is, the more pleasing and valuable the picture will be. We are puzzled to know how it can be a meanness and reprehensible to paint one class of natural objects, and yet be praiseworthy and commendable to paint another class, both depending for their beauty and excellence upon the nearness of the imitation to the object represented. For in contradistinction to Mr. Ruskin's dictum we hold that no man can make a first-class imitation of marble except he has a knowledge of both form and colour. It is a comparatively easy matter to paint the representation of a round ball which shall appear to stand out in full relief according to its diameter; but if the ball is of any transparent substance and we cut it in two parts and try to paint it as sunk in a flat surface and to appear translucent so that we may see as it were, down into its depths, we shall find it a very different matter to painting the same object in relief.

Now this is exactly what the marble painter has to do—not perhaps in the form of a ball, but in all sorts of irregular forms which, to be good, must have an apparent depth and translucency which can only be got by one having a consummate knowledge of colour and form, and a large amount of manipulative skill. The characteristic features of each marble are so distinct and peculiar, that no man devoid of a knowledge of form could imitate them. Mr. Ruskin says the grainer and marbler must think of what he is doing with veritable attention and care. We quite agree with him. If he had used a thousand words he could not have said more clearly that the imitations of woods and marbles is a work requiring thought, care, and skill in its execution, taxing the powers of the mind. Are these the particular signs and tokens of meanness? If so what a vast amount of meanness there must be in this world.

The late Mr. Owen Jones (than whom there was no higher authority on Decorative Art) says in his Grammar of Ornament, proposition 35, that imitations of woods and marble are allowable in all cases

when the real wood or marble would be used in construction by the architect. This opinion accords with common sense and universal practice. We believe in the great truth that the custom or practice, either in art or morals, which secures the greatest amount of comfort and happiness to the mass of the people is of the truest and best, notwithstanding the abstract views which philosophers and art critics may hold in reference thereto. The greatest and most sublime thought, scene, or action ever embodied on canvas can only have but a limited influence upon nations or peoples, simply because the expression of the painter's thought can only under the most favourable circumstances be seen by a comparatively few individuals, and when seen can only be understood by a still smaller number. But if we clothe the same thought or describe the noble action in suitable words, hundreds of millions of men of all nations and all creeds may be moved to the innermost depths of their souls by it, and be made better and happier by its influence. So it is in degree with all the lower phases of art work, its influence is widespread, and powerful for good, working silently but surely towards the end we look forward to. As a matter of course we would all like to have our houses decorated with rare and beautiful marbles, exquisite carvings in wood and stone, and ivory, cabinets inlaid with precious stones and gems, and silver and gold, our drinking vessels of the rarest china and the richest metals, and in the purest designs; but unfortunately this cannot be. There is one fatal objection, namely, cost. It is only the wealthy who can afford such luxuries. Another objection still more fatal, is the fact that with all the wealth the world can command there is an absence of the wealth of exceptional talent requisite to execute such works. Now according to Mr. Ruskin, if we cannot have real marbles and real sculpture—if we cannot afford to employ the most eminent men in all branches of the decorative arts—we had better leave our walls unpainted and unpapered, our ceilings without enrichments, our fireplaces without ornaments, our fire-irons and railings plain bars of iron—discard all castings, whether of plaster, cement, or iron, no matter how well designed or how suitable to the purposes intended to serve, no matter how much pleasure and comfort and happiness and instruction they are calculated to produce to the masses of the people. Away with them, tread them underfoot, discard them altogether. What right have we to enjoy spurious beauty? We must live in a barn until we can afford a palace, and if we cannot have a whole cake we had better have none.

This is the inevitable conclusion to be drawn from such teaching, and in practice its ugliness is demonstrated every day. How frequently we see private houses and public buildings disfigured with woodwork, simply sized and varnished, or stained and varnished, in which there are great ugly blotches of resinous knots, many the size of the crown of one's hat,—like black dabs of colour without form or beauty. If it were oak or well chosen pitch pine we should then have a work combining beauty and utility in grain and colour, but in the former case we have nothing but unmitigated ugliness.

In the *Magazine of Art* for June, 1881, there is a notice of a picture by one of the most eminent of living painters, Mr. Alma-Tadema, which says, "All of us know how he (Mr. A.-T.) can paint marble, and here is marble in abundance, executed with an imitative skill which is as reticent as accomplished."

This remark gives rise to the question we have before asked, viz.:—If it is praiseworthy and a proof of high skill and knowledge for one man to do this thing, how can it be said to be the very depth of meanness for the grainer and marbler to do the same thing on a wall, pilaster, or column. The objection is absurd on the face of it. Many of our architects make a compromise between Ruskinism and common sense; they say, "If we are to have imitations of woods and marbles we would confine ourselves to colour alone. We will have our woodwork the exact colour of oak, but plain combed straight up and down, without figure or dapple. If we have an imitation of marble we do not care how it is done, so that we have the colour of the marble we wish to see represented."

We have seen work of this kind done by some of the leading firms in the kingdom, on which an immensity of labour has been bestowed in the preparation of the grounds for marbling, and in the varnishing and polishing afterwards, while the marbling which is really the artistic work, has been the veriest daub imaginable, without depth or transparency—of the paint, painty. Now we protest most strongly against the spread of such teachings, as being utterly untrue, destructive alike of all thoroughness and good workmanship. Whatever we take in hand to do, let us do it honestly and thoroughly to the best of our ability. The nearer we approach to our original, the closer the representation is to the marble, so much the greater is the skill and knowledge displayed, and the greater the satisfaction to be derived from its contemplation. We have no objection to the use of real woods and marbles; on the contrary, we should rejoice to see them more extensively used in this country, and we are glad to see that they are being so used to a much greater extent than formerly, but for the sake of our common intelligence and sense of right, let us get rid of the ridiculous notion that imitations are to be discarded and put down, for we may rest assured of this much, that if we banish all imitations from amongst us, we shall have advanced far upon the backward path towards barbarism, and our homes and hearths will be desolate indeed.

(To be continued.)

We were told in the Cantor lectures, that in wall decorations, flowers, &c., should *not* be conventionalised. We, however, cannot submit to this dictum, for to see garlands and bunches of flowers on a wall is in every sense objectionable; it is as much suggestive of one's being in a flower garden, as to find a lady's bonnet covered with moss is likely to induce the beholder to imagine that the nature of the soil beneath is so poor that only such a lowly vegetable form can grow there. We may remark here, parenthetically, that it seems to us the height of absurdity for a lady to stick flowers or fruit in her bonnet. It is ridiculous from every point of view. A head was never meant to be a fruit nor a flower garden. Surely ribbons, lace, and such like suitable materials are to be met with in such variety as to please the most fastidious taste.

MEASURING-UP AND PRICING PAINTING WORK.

"THE JOURNAL OF DECORATIVE ART" HOUSE PAINTERS' PRICE LIST.

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(Continued from page 203.)

PAPERHANGINGS AND WALL COVERS.

WHEN flock paperhangings are painted, if estimated for, there must be ample margin allowed for them as their power of absorption is something enormous, increasing according to the heaviness of the flocking. The first coat in painting flocks is the most expensive, the second, third, and fourth decreasing each coat in cost.

Three coat painting on flock, if it is a deep one, is worth from 1s. 9d. to 2s. 0d. per square yard, any picking out in colour being charged for day work; or a good allowance per yard being made for it.

Flock papers for ceilings are coming very much into vogue now, and make effective work, the play of light and shade being very valuable in the results it yields.

LINCRUSTA WALTON.

Lincrusta Walton, as we have many times testified, is one of the most important and artistic inventions at present before the public, and for the effect it gives, and the permanency it possesses, is the cheapest wall decoration we have: it varies in price from 2s. 0d. to 4s. 0d. per yard for fillings, and from 3s. 0d. to 4s. 6d. per yard for Dados; Borders from 8d., Friezes from 1s. 3d. In estimating for covering a wall with it, from 7s. 0d. to 12s. 0d. per square yard is the price to be allowed for the material, hanging, and painting two coats plain, picking out charged for extra according to the extent of work introduced.

The following price list is for the material only and is subject to a trade discount which can be ascertained by writing to the works at Sunbury-on-Thames.

REDUCED PRICE LIST FOR 1882.

DADOS.

Height in inches	Width in inches	Nos.	Patterns.	Colours.		Plain per Lin. yard.
						s. d.
As cut	19	120	Fluted	Brown		4 0
23½	—	128	Early English	Do.		4 0
19½	—	129	Japanese No. 1	Do.		4 6
22½	—	132	Gothic	Do.		4 6
37	19½	139	Staircase	Do.	Left-hand	3 6
—	—	139A	Do.	Do.	Right-hand	3 6
—	—	139B	Do.	Do.	on the Straight	3 6
18	19½	147	Japanese No. 2	Do.		3 0
22½	18	149	Do. 3	Do.		4 0
28	—	150	Adams	Do.		2 6

FRIEZES.

						s. d.
	10½	124	Frieze	Brown, Buff and Green		1 6
	6	134	Japanese	Do.	do.	1 0
	6½	137	Do.	Do.	do.	1 0
	6½	144	Frieze	Do.	do.	1 0
	12	154	Adams	Do.	do.	1 6
	12½	155	Frieze	Do.	do.	1 6
	10	158	Adams	Do.	do.	1 6

FILLINGS

Height in inches	Width in inches	Nos	Patterns.	Colours.		Plain per Lin. yard
						s. d.
	18½	121	Flower	Buff and Green		2 0
	18½	122	Gothic	Do.		2 8
	18½	124	Renaissance	Do.		2 8
	18½	127	Sunflower	Do.		2 8
	18½	130	Japanese Pattern	Do.		4 6
	18½	131	Gothic Lily	Do.		2 0
	18½	143	Rosette	Do.		1 6
	18½	138	Crêpe	Do.		1 3
	19½	140	Key Pattern	Do.		2 0
	18½	141	Cupid	Do.		4 0
	18	142	New Gothic	Do.		2 8
	18½	143	Cross Chain	Do.		1 6
	18½	152	Adams	Do.		2 0
		159	Japanese	Do.		2 0

A great many of these patterns can be used as Dados with good effect. All in 12 yard lengths. Extra charges for cutting lengths.

BORDERS.

						s. d.
	3	125	Border	Brown, Buff and Green		0 7
	3	126	Do.	Do.	do.	0 7
	2¾	135	Japanese	Do.	do.	0 7
	2¾	136	Do.	Do.	do.	0 6
	3	145	Border	Do,	do.	0 9
	—	146	Do.	Do.	do.	0 8
	4½	148	Do.	Do.	do.	0 8
	5½	156	Adams	Do.	do.	1 0
	5½	157	Do.	Do.	do.	1 0

PANELS.

						s. d.
26	10½	100	Peony, Swallow and Fish	Brown		3 0
20	10½	101	Peony and Swallow	Do.		2 6
15½	10½	102	Peony	Do.		1 9
8½	10½	103	Swallow	Do.		1 0
4½	10½	104	Fish	Do.		0 6
22½	6½	105	Gothic	Do.		1 6
22½	6½	106	Lily	Do.		1 6
17½	11½	107	Bird and Rose	Do.		1 6
17½	7½	108	Blue Bell	Do.		1 0
12½	10½	109	Japanese No. 1	Do.		1 0
15⅝	7¼	110	Do. 2	Do.		1 0
7½	7¼	111	Do. 3	Do.		0 6
5½	10½	112	Do. 4	Do.		0 6
5½	10½	113	Do. 5	Do.		0 7

WALL PAINTING.

	Per sq. yd. s. d.
Painting (old work) two coats, finished, flatting	0 8
Do. do. three coats	0 11
Do. (new work) three coats	1 0
Do. do. five	1 6

STENCILLING.

Stencilling diapers, one colour, simple open design	1 6
Do. do. elaborate design	2 6
Extra colours if stencilled at the same time to be charged for at the rate per colour of	0 6

	Per lin. yd.
Stencilling Friezes from	1 0
Do. Borders „	0 6
Do. Dados „	2 0

According to the design and colours.

Lining from	0 1½

WOODWORK.

	Per square yard. s. d. to s. d.
New—Knotted, stopped, and painted three coats	0 8 to 1 0

According to the finish.

Painted, five coats from	1 0 to 2 6

Enamelling and polishing charged for day work.

Old—Rubbed down, stopped, and painted three coats from	0 9 to 2 0

According to the amount of preparation and finish.

Per coat, additional	0 3 ...
Varnishing, per coat, for oak varnishes	0 6 ...
For carriage varnish	0 9 ...
For French oil and body varnishes	1 0 ...

GRAINING.

Oak from	1 0 to 3 0
Walnut „	1 6 to 5 0
Maple „	1 0 to 3 6
Pollard Oak and Root of Oak „	1 6 to 4 6
Satinwood, Mahogany, and Hungarian Ash from	1 0 to 3 6

Fancy woods, such as Amboyna, Tulip Wood, Silver Wood, and others which are only used in small quantities should be charged for specially.

(To be continued.)

TRADE INTELLIGENCE.

THE Varnish now being sent out by the Yorkshire Varnish Company is of exceptional quality both in body and gloss. We commend it to our subscribers for a trial. We note that Mr. J. J. Lundy has transferred his services to the London branch of this house, 39, Upper Thames-street.

WE would recommend our readers to send for the catalogues issued by the Papier Maché Company, particulars of which can be seen on page xii of our Advertising columns, much that is useful will be found in these catalogues, and their price is nominal.

OLDHAM.—On the 12th ult., a meeting of operative painters was held at Oldham, on the subject of a proposed advance of a halfpenny per hour in their wages. They hold that the employers agreed last year at the close of the strike to give a halfpenny advance, which has been conceded in Ashton. The fact of the advance not being given by the Manchester employers has been adduced by the Oldham employers as a reason why it should not be granted. It is likely the dispute will be referred to arbitration.

IT is with very great regret we announce that Messrs. Jackson and Graham, of Oxford-street, have suspended payment. The business was established in 1826. The transactions of the firm have been very large, the average weekly salaries paid being about £1,200. The liabilities are estimated at £215,000, of which a portion is secured, and the assets show a surplus subject to realisation, so that it is hoped that, with time, payment will be made in full. At the London Bankruptcy Court, on Wednesday, a receiver and manager of the property was appointed.

TURPENTINE has shown a tendency to lower but nothing of much consequence, its present market price is 41s. 6d., but without necessity compels, we would advise all intending buyers to hold off a little longer, as another month will show a considerable reduction in price.

THE introduction of the Electric light for domestic purposes, is calculated to have a wide felt influence on Decorative Art—the increased protection it imparts from the absence of smoke, should induce householders to launch out into a more ornate description of work than has hitherto obtained.

THE reluctance which a British *pater familias* spends money on making his house, and home pleasant to dwell in, is amusing, if it had not a serious side to it; he will take his family away to the sea side, and in a fortnight's time, spend as much money and more, as would make his home a little paradise if judiciously laid out. We could understand this, if we like some of our Continental friends, spent the best part of our time out of doors, but as of necessity the reverse must always be the case, it surely is desirable that the walls and woodwork of our houses should be not only covered, but covered in a way that is tasteful and educational in its influence.

THE Second Annual Furniture Trades' Exhibition was in every respect one of the most successful of the trade exhibitions which have been held, and Mr. Mersant and his colleagues deserve every congratulation on their enterprise and public spirit. Not only were the exhibits more numerous than last year, but they were equally advanced in character and style, and the attendance of the public left nothing to be desired. Such a result is encouraging, and demonstrates anew the fact that if the public are well catered for they will always respond.

TRADE is now very brisk with house painters. From all quarters we hear of men being wanted—a good thermometer—and the season promises to be a good one in every respect. The bulk of the work, however, is old work, the building trades being but indifferently busy; in many districts it is positively slack.

THE pattern book issued by Mr. T. C. Stock, of Bristol, is an excellent all-round selection of goods, and will be found useful for all classes of work. A liberal discount is allowed to the trade from the list price, and every inducement given for good buyers.

BRISTOL is famous for its enterprise in this direction, as the collection sent out by Messrs. Cotterell Bros. is not one whit behind its competitors, and the promptness of despatch which Messrs. Cotterell give to all their orders is a consideration of great importance to tradesmen. Messrs. Cotterell Bros. send off all orders the same day on which they are received, their large and constantly replenished stock enabling them to do this.

INDIAN "art objects" are rapidly taking rank as fashionable ornaments of London houses. The carpets of Mirzapore and Agra, of Sind and the Deccan, are already common, and the jewellery of Delhi, Cuttack, and Trichinopoly have been for so many years in favour that they are no longer novelties. Quaint products in peacocks' feathers and beetles' wings; ornaments in horn and ivory, lacquered and inlaid work—all these have gradually become familiar. But the range of western taste is growing every year more catholic, and fashion now extends her approbation beyond the merely curious to the useful arts of the east. The tissues of India, so varied in material and so admirable in texture and often in design, are acquiring a solid popularity which they well deserve; while the pottery, especially of the western provinces, has at last challenged intelligent admiration. It is, however, to the metal work of our eastern empire that the most marked attention has been recently directed; and though at present fashion concerns itself with only one form, and that perhaps one of the least beautiful, western taste is sure before long to extend to the rest. Meanwhile the brass work of Benares holds the field almost alone; and, if only for the gaiety of its appearance and the surpassing interest of its associations, deserves the place it has obtained.

SITUATIONS VACANT AND WANTED.

In order to meet many applications from subscribers, we have opened a Register Book, for employers requiring grainers and decorators, and a corresponding book for grainers and decorators requiring situations. We propose to make this a medium of communication between employer and employed free of cost.

Any master painter, therefore, in want of a grainer or decorator, sending their full name and address, with an additional stamp for reply, to the *Journal of Decorative Art*, head office, 1, St. James's Square, Manchester, will have their name entered into Book A, and will receive in reply a list of applicants for situations whose names are then on the books.

In the same way, decorators and grainers wanting situations will have their names entered in Book B, on sending us their full name and address with an additional stamp for reply.

We hope by these means to confer a benefit on all classes of our subscribers, and make the *Journal of Decorative Art* of increased usefulness to the trade.

We have now on Book B, the names of several applicants, grainers, decorators, foremen. Employers having a vacancy, can have the names sent on free of cost by enclosing a stamped addressed envelope for reply.

TO GRAINERS.—We have on our Register Book the names of a number of employers wanting grainers, a list of which will be sent on receipt of stamped addressed envelope.

FIRST PRIZE DESIGN.



SECOND PRIZE DESIGN.



A. E. Hartley, York

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] JULY. [PRICE 7D.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

NOTICE TO OUR READERS.

WITH our next issue we are giving a double-page design showing decoration for Frieze, Dado, and Door Panels. The design was placed first in the *Journal of Decorative Art* Competition at the Agricultural Hall in March last, and we are printing it as an exact reproduction in colour and gold. The great cost this entails upon us compels us to advance the price of the journal to ninepence, FOR AUGUST ONLY. We have emphasised this, from the fact that some of our friends appear to have got under the impression that we are permanently raising the price of our paper. No such intention ever entered our head, so liberally have our efforts been supported that we are quite satisfied with the results of our undertaking, and shall continue as heretofore to devote our best energies to making our paper as useful as possible to our readers and subscribers. It will be observed that with this number, we issue sheets of coloured advertisements; this is a new departure in serial advertising, which opens up a wide field for artistic talent to display itself in.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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CHAPTER XX.—DECORATIVE PROCESSES.

IN selecting pencils the chief points to be observed are—that the quill should be well filled and the hair firm and solid, tapering to a fine point, which, in using, should always retain its point unbroken. A poor or badly made pencil, will open at the point and the hairs will spread, and of course become useless. When buying pencils always test them, by wetting, and whilst wet place the point upon the thumb nail, twisting it round the while; if it retains the point when so twisted it may be considered a good pencil, but if the point splits, or the hairs spread, it is best to reject it as it will never be any good. The same test will apply to all other pencils except "liners," these being required to work at their full width and not at the point a fine point is not necessary. Camel hair pencils, are commonly supposed to be made of the hair of the camel. Pencils no doubt have been made of camel hair, but, singular to say, the pencils sold and universally accepted as camel hair, are in fact made of the hair of the North American squirrel; and there is no resemblance between the hair of the two animals. We get a good supply of this fur from Siberia, but this is only used for some of the longer brushes, and is not fitted for making pencils. In selecting camel hair pencils, the same tests hold good as those for sables. Good pencils are also made from the fur of the English polecat, or fitchet, a quadruped of the weasel species. It is a good strong hair, and goes by the name of fitch hair, it is nearly black in colour having a glossy surface.

A very important part of the process of decoration is the setting out of the work before commencing to ornament it by stencilling or otherwise. All applied decorative surface ornament must of necessity have a geometrical arrangement, although in itself not drawn on a geometrical basis, in placing it upon a ceiling or wall it must be confined within certain lines or spaces, and these require to be set out exact, in order to guide and control the placing of the various parts of the ornament; and except this be done before commencing, there will be no good work result. We will take for our first example, a ceiling; simple in its character, and on which the ornament shall consist of corners, centres, and a centre flower; and then show how to set out the walls of a room which is to be panelled and ornamented within the panels. It is often the case that in stencilling a border round a room ceiling, the workman will take the edge of the cornice as his guide and work by that, instead of first striking a line; this is a mistake, because ninety-nine cornices out of every hundred, are far removed from a straight line, indeed, it is a very rare circumstance, to find a straight line in a moulded cornice, so that it is best and safest in all cases to strike a straight central line and measure from that. In setting out a ceiling, we must first have a design to work from; and this design, will be our guide as to the number of lines required, and the exact place for the ornaments. By so doing, we should always be able to see clearly before we begin, what is to be the finish of our work. Except this be so, we are apt to get into a muddle, besides, it is not always the case that the designer carries out and applies his own design, in fact in large establishments, this is rarely the case, inferior workmen therefore are employed to apply the design to the work: when we say inferior men, we of course do not mean incompetent men, but men who while well able to execute the work, are incapable of originating a design; and of course, these are the majority. We have first then to look at our design, then measure the distance the first line is to be from the edge of the

cornice, this generally will be about four inches (except in cases where the ceiling is to be panelled, then the stile next the cornice, would have to be of the same width as the stiles which divide the panels, but this is not a fast rule), this is about the best width for ordinary ceilings. Having struck this line correctly, we take it as our guide to measure the distances of all other lines we may require, this plan insures that all the subsequent lines shall run parallel with the first one or, two central lines can be struck intersecting each other at right angles and the lines measured from these, we even prefer this to the former plan, it is at times found expedient to depart from the strictly straight lines and to humour our decorations, to the inequalities of the ceiling in order to render them less apparent. Too much care cannot be observed in having all these lines correct, it being an easy matter to make a mistake in this respect, but a very hard one to repair the mistake when it is made. Having struck all the side lines we must now ascertain and mark the centre of each wall, and now we come face to face with a difficulty which often causes much cogitation and trouble to properly overcome. Wherever there is a centre flower upon the ceiling, this difficulty will always be present, that is to say if the chimney breast projects, as it does in the great majority of rooms. Now there are in this case two positions in which the centre flower may be fixed. The one being to place it in the centre of the room without regard to the projection of the chimney breast, the result therefore is, that the width between the centre flower and the chimney breast, and the width between it and the opposite wall, will be different. The ultimate consequence being, that any decoration put upon the ceiling which is carried round the chimney breast, having the same position in regard to it as it has from the cornice in the other parts of the room, must of necessity be much nearer to the centre flower on one side than on the other, giving the lines and ornament a one-sided look. To avoid this, we are compelled to run the border ornament and lines into the side of the chimney breast, and disregard the front of it, in fact setting it out as if there were no projection at all. The other position for the centre flower, is in the centre between the chimney breast and the opposite wall; in this case we can carry the ornament in front of the cornice and so keep the spaces on each side equal. It is a debatable point which of these positions is the best or most appropriate for the centre flower to be fixed. As a general principle and especially when a ceiling is decorated in a simple manner, we are in favour of placing it equi-distant from the chimney breast and the opposite wall, instead of in the centre of the square of the room, because the ceiling when decorated will look square and more finished with the lines in front of the chimney breast than without them. It will be more complete, and although the width of the flat of ceiling will be greater at each side of it according to the width or depth of the recess, that we hold to be of less consequence; and it will not be perceived as soon, nor appear as defective as the inequality of breadth at each side of the centre flower. But when the ceiling having the centre flower fixed in the centre of the square of the room is decorated in a more elaborate manner, the defect, if it may be so termed, may be got over, by so arranging the border to the ceiling, that it shall be the exact width of the projections of the chimney breast. When a border of this size or width dies or stops at the sides of it, it appears to do so naturally, consequently there is no incongruity nor apparent break in its continuity, because it runs the same width all round the flat of ceiling, and is at the same distance from the centre flower on each of the two sides, thus forming an equal-sided panel on the flat of ceiling. Centre flowers are being done away with in many houses, and side lights substituted for chandeliers. Whether this is an improvement or not, is a matter for individual taste, and will be thus settled, and not by argument. Having got the centre of each wall, we make a mark to guide us in placing the centre breaks. These breaks are useful as well as ornamental, they serve to relieve the long lines, and form a pleasing spot for the eye to rest upon; and when corner ornaments and lines form the sole decoration of a ceiling, they aid very much in furnishing it. The breaks should always be designed in the same style as the corners. And even if the ceiling has a border upon it, they add to the finish of the work, though they are simply a curl of the line, which should in that case be put upon the panel formed by the border on flat of ceiling. All our lines and centres being struck correctly with the chalk line we have a sure guide for our work, and with common care need not fear making a mistake.

We have been describing a very simple style of ceiling, but the same directions will apply to the most elaborate ornamentation done upon ceilings having no structural features of their own. We have now to describe how best to set out the walls of a room for panelling, and here as well as in the setting out of ceilings we are met by a difficulty at the first step. All rooms of course have doors and windows. Now the question arises, whether is it most proper to throw the walls into panels, and disregard the doors and windows and chimney breast, or whether is it the right way to make each separate or distinct portion into a panel, namely, by making a small panel over the door, one over the mantel-shelf, one at each side of chimney breast, and each side of windows, and divide the large wall into three or more panels. Some architects and decorators are in favour of one way, and some the other. If we make each wall into a single panel—which for most rooms is certainly the quietest and most unpretentious style—we must perforce disregard the openings in the wall, (windows and doors are so called) simply because we should create a deformity if we did not ignore them. On the other hand, we find in the best examples of wainscot panelling left to us, that the architects invariably made each space into one or more panels complete. Over doors, chimney breast, and every separate wall was so treated, this of course was wood panelling, and we are now speaking of decorative panelling. The principle is the same, but whether the form of structural

woodwork should rule in decorative panelling, is an open question. In the case of wood panelling there can be no doubt as to the correctness of this plan, because as a rule each wall is divided into a number of panels: five, six, or ten, according to the size of the room, consequently however small some of them may be there is no incongruity, all appear as they should, being as they invariably are all of one colour. But when we come to divide a room into a number of panels, with paper or paint, gold mouldings, or lines and ornament, we at once introduce a busy element, a source of unrest; a want of repose at once impresses us, and we feel that this is all made for show, that good taste is absent, and that all is glitter and glare. The eye is drawn to this the moment we enter the room, and we feel its presence the whole time we are in it. In a room of this kind pictures are a superfluity. We are of course, now speaking of rooms that we have repeatedly seen, which are over-panelled and crowded, but we do not by any means condemn a properly panelled room, which shall leave room for what are after all the chief ornaments of the walls of a drawing-room, namely: water colour paintings and engravings, provision should always be made for these. While personally we prefer each wall to be put into one panel, we do not object to each wall being thrown into three panels, two small and one large, in this case we may arrange to hang one picture in each panel, or if the centre panel is large enough three pictures may be hung on it, and one in each of the smaller ones. In dividing the large walls it is best to take the width of the recess, at each side of the chimney breast and form each of them into a panel. These are the best guides for determining the width of the narrow panels on each wall, when three panels are used. We would put a panel at each end of the large walls of the exact width of the recess panels and let the centre panel come in as it will. We thus obtain uniformity in our arrangement. And if the door is placed at one end of one of the long sides of the room, as it usually is, we should disregard that, and let the narrow panel come in as it will, this is better in all cases than making a separate panel over the door. In setting out the side of a room for panelling, we would mark out the width of the stile, which may be six inches, or six inches top and bottom, and five inches the upright division of the panels, according to the size of the room. The reason for the difference in the width, is the fact, that horizontal lines, or bands, always look narrower than perpendicular ones. This is especially the case if the horizontal line is placed above the line of sight, and the higher it is the narrower it will appear. While with the perpendicular line we always see the full breadth of it. Having decided the width of the stiles, we strike the horizontal lines first, and then the perpendicular ones, having first measured and marked each one, by forming the panel in the recesses. The panel over chimney-piece should die into the shelf and not show a complete panel. It will of course be understood that the stile at each side of the angle of each wall, will be of the same width as the other perpendicular stiles. We give this caution as we have seen rooms where these have only been half the width, that is supposing that the stile was six inches, there has only been three inches on each side of the angle. This is decidedly wrong.

There are of course many ways or styles of defining and ornamenting panelling when set out, but as we purpose treating of these separately in some future chapters, we shall content ourselves here, with having pointed out how this work should be done.

(To be continued.)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

Continued from page 208.

Chapter XVIII.—The Canton.

THE word Canton in French means any given part of a whole space, as provinces or counties are divided into several cantons, as the Swiss Cantons. In heraldry it signifies a square part of the escutcheon, of no special size, but somewhat less than the quarter and generally at the dexter side of the shield. When it is placed on the sinister side it is called the Canton sinister, but this seldom happens in English heraldry.

It is supposed that the Canton was intended to represent the banner given to the ancient knight banneret when the honour was conferred. That may have been the case, but its proper use is as an honourable addition to a coat of arms, or a necessary distinction to point out the difference between the several branches of a family, as in Fig. 77, Ermine, a Canton purpure. A shield, ermine, is the well-known and ancient bearing of Britanny, in France, and the Canton is added to point out a difference between the ramifications of the families entitled to bear it. See Fig. 78, Argent, a Canton and a fess conjoined, gules. In some cases the Canton, being of the same colour as the fess, is separated from it by a shaded line. When the Canton is added to a coat of arms that had originally a bordure, it ought to be placed upon it, but if the original coat posseses a Canton, then the bordure must go round.

Flanches and Flasques.

Flanches is a plural derived from the French *flanc*, which signifies the side of a thing, but chiefly of the human body. They are formed by two curved lines or semi-circles, and are never borne singly. See Fig. 79, Azure, two flanches, or; also Fig. 80, Gules, two flanches, argent, per chevron, countercharged. When the curved lines are more eliptical in form, and do not recede so far from the flanks of the escutcheon, some heralds call them Flasques, because they resemble in shape the bellied half of a flask or flagon.

DIVISIONS OF THE SHIELD.

THE CANTON.



Fig. 77.—Ermine, a canton, purpure.



Fig. 78.—Argent, a canton and a fess conjoined, gules.

FLANCHES AND FLASQUES.

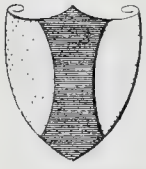


Fig. 79.—Azure, two flanches, or.

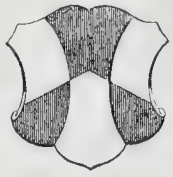


Fig. 80.—Gules, two flanches, argent, per chevron, counterchanged.

THE GYRON.



Fig. 82.—Argent, a gyron, sable.

THE FRET.



Fig. 83.—Sable, a fret, argent.



Fig. 84.—Or, a fret couped, sable.

THE FRET.—*Continued.*



Fig. 85.—Gules, fretté, argent.



Fig. 86.—Azure, fretté and semé of fleur de lis, or.



Fig. 87.—Argent, semé of cross crosslets, sable, a demi lion proper

THE PALL OR PAIRLE.

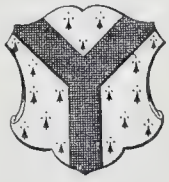


Fig. 88.—Ermine, a pall, sable,



Fig. 89.—Or, a pall or cross pall, sable.

THE LOZENGE, FUSIL, AND RUSTRE.



Fig. 90.—Or, a fusil, or lengthened lozenge gules.



Fig. 91.—Azure, a mascle in base, argent; on the sinister chief post a rustre, argent.

The Gyron.

This word is supposed to be derived from *gyrus*, a circuit or circle, this charge being a piece of the shield divided quarterly and per saltire, which then takes the appearance of a wheel, whose several alternate pieces seem to turn (gyron) round with the escutcheon. It is in heraldry a triangular figure formed by two lines, one drawn diagonally from one of the four angles to the centre of the shield, and the other either horizontally, or perpendicularly, from one of the sides of the escutcheon, meeting the first line in the centre of the shield, as in Fig. 82, Argent, a Gyron, sable. If the Gyron proceeds from the dexter side of the shield it is blazoned a Gyron; but if it proceeds from the opposite side of the shield we must add the word sinister as we do to the bend canton, &c.

The Fret.

This figure resembles two sticks crossing each other salterwise and interlaced with a mascle, as in Fig. 83, Sable, a Fret argent. Its name originates from opposite position of the sticks supporting each other, from the Latin adjective *fretus* signifying relying upon, supported by. Gibbon calls it *heraldarum nodus amatorius*, the herald's true lover's knot.

The Fret is sometimes couped at the four angles and becomes an isolated common charge in the field, and may be placed in any point, as in Fig. 84, Or, a Fret couped, sable. When the field is covered by small bendlets, or sticks, interwoven and crossing each other at equal distances it is called *fretté*. The water of a brook fretting amongst the pebbles within narrow banks, gives a good representation of this bearing, and may have occasioned its name, Fig. 85, Gules, fretté, argent. Sometimes the lozenge parts of the shield left uncovered between the intersections of the bendlets are charged as in Fig. 86, Azure, fretté, and semé of fleurs de lis, or.

The word semé used here is from the French *semer*, to strew, or throw about irregularly, and is made use of when the field is strewed with charges repeated to an indefinite number, as in Fig. 87, Argent, semé of cross-crosslets, sable, a demi lion proper.

The Pall or Pairle.

The Pall is a subordinate ordinary representing the pallium or mantle of the ancient archbishops and patriarchs, and took its origin in Palestine, in remembrance of the benediction the Crusaders used to receive at the hands of the dignitaries of the Church previous to their giving battle to the infidels. It is in the form of a chevron reversed, and a demi pale meeting at the centre point of the shield, as in Fig. 18, Ermine, a Pall, sable; also Fig. 89, Or, a Pall or cross pall, sable.

The Lozenge.

The Lozenge is composed of four equal and parallel, but not rectangular sides, two of its opposite angles being acute and the other two obtuse. It imitates in form the diamond upon cards, the glass quarries in the ancient leaded window panes.

The Fusil.

The Fusil is a lengthened lozenge, or a lozenge whose diagonal lines are still more unequal in length. Its name comes from the Latin *fusus*, a spindle, in French *fuseau* and *fusel*, representing the shape of those ivory instruments with which in ancient times the ladies used to spin and weave the scarf or garment or embroidered surcoat for their liege lords to wear at the tournament or on the field of battle. See Fig. 90, Or, a Fusil, gules.

The Mascle.

The Mascle is supposed to have been a representation of the meshes of a net, or of the scales of a coat of mail, the word being in Latin *macula*. It is like a lozenge in shape, but is perforated through its whole extent leaving only a narrow bordure, as it appears in Fig. 91, Azure, a Mascle in base, argent.

The Rustre is a lozenge pierced like the nut of a screw, but if the shadow of the hole is made to show a projection instead of a cavity, it may be called a lozenge charged with a bezant, plate or any other roundel, as in Fig. 91, on the sinister chief point azure, a Rustre, argent. These four charges should be so placed with their longer sides placed perpendicularly on the shield.

ALPHABET OF HERALDRY.

CURENT, is applied to a horse that is represented going at full, and without bridle or saddle.

DANCETTE or DANCETTED, a large indenting, being wider and deeper than that called Indented, and whose teeth or points never exceed three in number.

DEBRUISED, denotes the restraint of any animal debarred of its natural freedom, by another charge or any of the ordinaries, being placed on it.

DECRESCENT, this applied to a moon in its wane, whose horns are turned toward the sinister side of the escutcheon.

DENTICULATED, is said of a line or an ordinary formed outwardly like the embattled; but differing from it in having smaller and closer incisures, resembling a row of teeth.

DEXTER, is used in heraldry to signify the right side of the shield.

DIAPERED, is said of a shield divided into panes like fret work and filled with a variety of figures.

DIFFERENCE, a figure added to coats of arms, to distinguish one family from another, and to show how distant younger branches of the same family are from the parent stem.

DIMIDIATED, a word used in blazoning an animal divided into two parts, chiefly applied to half or demi-lions, &c., borne in crests.

DIMINUTIVE, a word used to denote heraldic charges, contracted either in breadth or length, from the proper dimensions appertaining to the principal ordinaries to which the figure belongs.

DORMANT, the posture of a lion or any other beast asleep.

DOUBLE-QUEUE, having two tails.

DOUBLE-TRESSURE, two tressures or orles, one within the other.

DOUBLINGS, the linings of robes of state, also the rows of fur, with which the mantles of noblemen are trimmed.

DOVETAIL, a partition, wherein two different tinctures are set within one another, in such a manner as to represent the form of the tail of a dove, or wedges reversed.

DUCAL, pertaining to a duke, or a ducal coronet, &c.

(To be continued.)

MESSRS. PONTIFEX AND WOOD, AT MILLWALL.

THE premises occupied by Messrs. Pontifex and Wood are situated on the north bank of the Thames, at Millwall, opposite that noble pile of buildings, Greenwich Hospital, which remains a lasting tribute to the greatness of Wren's genius. With the largest water frontage of any one firm on the river; with connections inland with the railways of the United Kingdom, Messrs. Pontifex and Wood are admirably placed for doing a business whose ramifications and connections reach out into all parts of the habitable globe. Large as these premises are, covering over four acres of land, they only represent one section of Messrs. Pontifex and Wood's gigantic interests. At Garratt, in Surrey; at Derby, and at Shoe Lane, London, are immense works, devoted to the engineering business and the manufacture of copper and brass utensils of every description, which has made their name famous the world over.

These other works, and the interests they represent, lie outside the scope of our present notice, and we only allude to them to convey to our readers some idea of the size and extent of Messrs. Pontifex and Wood's undertakings; it is to the works at Millwall, and the manufactures carried on there, that we propose to devote our attention in these pages. Availing ourselves of an opportunity which presented itself, we went down to Millwall and inspected the premises and the processes of lead manufacturing, which we propose to describe for the entertainment of our readers, who are necessarily interested in the manufacture of an article of which they are such large consumers.

The question has assumed considerable importance of late, from the fact that there have been several deaths reported as arising from the processes involved in its manufacture.

One of the "leading" metropolitan journals, whose reputation for accuracy and exactness is founded on a certain "Man and dog fight," and on a somewhat premature death and burial of Osman Pasha; recently devoted several of its "agony columns" to a fervid description of the evils arising from, and "inevitable to," the manufacture of white lead as at present conducted. The article was garnished and embellished in a style true to the traditions of the paper in which it appeared. Several of the statements therein made, being, to say the least of them, highly coloured, and the whole tone and drift of it was struck from a key-note of bias, or with a desire on the part of the writer to "magnify his office." We can, at all events, confidently state that wherever the writer obtained his "facts" from, and however true they may be in the cases that came under his notice, they are quite at variance with what we saw and examined for ourselves at Messrs. Pontifex's and Wood's establishment. The experience of any employer of labour in the Painting Trade is, that in the great majority of cases the men who suffer from "poisoning," are the men who neglect the common precautions of cleanliness, and that where these are conformed to, they can work amongst the paint with comparative immunity from harm; this is our own experience extending back over half-a-century, and it is one confirmed by all who have carefully watched their men. There are, of course, individuals on whom lead fumes have a most deleterious effect in the same way that cucumbers which are a luxury and delicacy to one man, are rank poison to another. Our homely proverb that "What is one man's food is another man's poison," is the popular embodiment of the self-same truth.

We never saw a finer set of women, for physique, than those to be found at Millwall, and we doubt whether a promiscuous number of finer women could be met with in any class of establishment. We had pointed out to us, one old lady who has been uninterruptedly (for a period of over forty years) engaged in lead manufacture for the firm, and who now has three stalwart daughters following the same occupation without any injurious results. From what cause we know not, but it is a fact, that women can escape with comparative immunity, where men would succumb, but, says the paper to which we have already alluded, "The saddest part of the "woman's story was that which indicated how little "attention is paid to the means by which the mischief "might be averted or diminished. No precautions, "she asserted, are taken to mitigate the baneful "action of the poison. It is well known that the "wearing of a respirator over the mouth and nostrils "lessens the danger very considerably. A stream of "running water, at which the operatives could wash "their hands, would be a valuable preventive, but "it is not provided, nor, indeed, unless the responsible "parties are wrongfully accused, is there anything "like a proper provision of water at all—not even a "brush with which the poor women can brush their "poison-laden clothing when they leave off work. "Said the coroner's beadle, 'I have seen them eating "bread and butter covered with lead powder,' which "seemed hardly feasible, but it is not impossible, if "as the four witnesses declared, when the women "give their skirts a shake before they come away, the "poison dust flies from them in such quantities, that "anyone standing by will clap her hand over her face "to prevent getting a 'mouthful.' Nor is this all. "Although not exactly a hard and fast rule at some "establishments, the female hands are not expected "to leave the premises from the time they arrive "there in the morning until they leave in the evening. "The men are at liberty to do as they please in their "dinner hour, but the women may not. The reason "assigned by those with whom I talked on the subject "is, that the women's clothing gives them facilities "for palming and secreting pieces of lead, and indeed "some of the female hands have been detected in such "petty thefts, to minimise which it is thought judicious "to limit the opportunity as much as possible. Any-"how, in order to reconcile the women to the desired "arrangement, there is usually a place set apart as a

"kitchen, and here they may cook the food they "bring with them, and sit and eat it. Yet, surely, "with the air of the whole place impregnated as it "must be with poison particles, it would seem from a "humane point of view that a white lead factory "should be the last place in the world in which to "set up a dining-room."

These are grave charges to bring against an honourable body of men such as the employers are; and we think, that before the publicity and authority of a leading and influential paper was given to statements of so serious a character, it would have been more becoming and judicial to have verified them by actual personal observation. They are in direct opposition to all that we saw and heard at Messrs. Pontifex and Wood's works, where we found every facility given and provision made to mitigate and neutralise the harmful effects of the lead; and we are in a position to categorically deny the accuracy of the statements made in the article we refer to, as affecting the rules and regulations of Messrs. Pontifex's establishment. In the first place, there are no restrictions put upon the women in the matter of leaving the works at meal hours, they are at perfect liberty to go or stay, as they may desire; but there is a very wholesome and inflexible rule laid down for those who remain behind, and that is that they are not allowed to cook their own food at all, but all meals are prepared by the housekeeper, who is kept specially for that purpose. In the next place there is ample accommodation for washing purposes, a large light room being set apart and fitted up with lavatories and two large baths; no woman is allowed to sit down to her meals until the housekeeper is satisfied that she has properly cleansed herself; we cannot, therefore, see by what force of reasoning the responsibility can be laid at the door of the employers. The dining-room is a spacious and lofty room, cleanly kept, and well adapted for its purpose.

As to the reliable testimony of the coroner's beadle,—so gravely quoted, it is just the sort of accurate witnessing we should expect from Bumbledom, and we quietly dismiss it for what it is worth, and are able to state, that whatever can be done to ameliorate the unpleasantness and drawbacks incidental to such an employment; is here done. We have dilated at some length on this question because we felt that a number of honourable gentlemen were for the sake of a sensational article, charged unjustly with neglect of their responsibilities and duties.

Reverting to the original purpose of our paper, we will endeavour to make our readers familiar with the *modus operandi* which converts the Blue Lead into the manufactured article we buy and use. The raw material—the pig lead destined for making into white lead—is obtained principally from Newcastle and Germany. Lead suitable for undergoing this process of transformation must be of the purest known quality. It mostly comes to the establishment in barges alongside the firm's wharves; the manufactured article for the most part being sent away in vans, either for delivery at the docks, the different railway stations, or to individual customers resident in London. The first process, is that of Purifying or Crystallising. The pig lead is subjected to a certain treatment for the purpose of refining the metal, known as Pattison's "Crystallising process." Melted in a series of iron cauldrons, or pots, each holding some 12 tons, which are heated below by means of furnaces, it is kept in a molten state, while the crystals, representing the purest portion of the metal, are carefully removed. These are then taken to another department and again melted and whilst in a molten state are run into moulds fifteen inches long by four wide, here they solidify and when cool are turned out, and the moulds again refilled, these moulded pieces of lead are known technically as "Crates." Women do this part of the work, and indeed right through up to the final grinding it is mainly female labour that is employed.

The next process is that of "corroding." This is "The Dutch," the oldest method in vogue, and produces lead of greater opacity and density than by any of the newer systems adopted by some other firms. The corroding is the most important and costly of all the processes. Ranged on each side of a wide passage is a row of large rooms, twenty-four feet square, and from seven to eight yards deep. These are called "stacks," from the fact that the lead in the crates is here stacked as follows. A layer of tan three feet thick having been spread on the floor of the stack, it is covered all over with rows of pots, two large ones flanking three smaller ones, three parts filled with vinegar. On the top of these pots the crates are placed to the depth of about twelve inches. These are held in position by two floors of planks, the joints of the lower floor being covered by the upper row. On the top of these is spread another layer of tan to the depth of nine inches, and on this more pots and crates are laid. Thus the stack is made, until the large room is filled up to the top, each row is called a bed and there are twelve beds in a stack.

Each bed will hold about six tons of metal, or seventy-two tons for each stack, and in this form it is allowed to remain for three or four months, subjected to the fumes of the vinegar and tan. By this operation it becomes converted from metallic lead into an acetate of lead. The fermentation of the tan forms carbonic acid, which expels the acetic acid, forming a carbonate, or white lead. The next operation is to convey the lead to the breaking-down vat, which is done by carrying the corroded crates in boxes and throwing them into the vat. Here they are washed in running water, and the portions remaining uncorroded are separated from the corroded lead, and sent back to be remelted and subjected to the same process again.

From the breaking-down vat the corroded lead is thrown into a funnel-shaped mouth and carried between three rollers into a lower vat five feet deep. This vat is fitted with perforated copper plates through which the finer parts of the lead drop, whilst the coarser portion is again passed through the rollers. When the vat is full, sluices at the bottom are opened, which permits of the lead being deposited in a lower tank or "back." This is fitted with an Archimedian screw, which works out the pulp lead to a conductor which carries it underneath two sets of grinding stones, whilst another screw traverses the "back" diagonally, with the same object

as the one we have just described. After being ground a second time the pulp is carried into a number of large tubs about six feet deep, whence it is removed into a well and afterwards pumped up into "settling backs." From the settling backs, the lead which has now the consistency of thick distemper, is poured into dishes like a low earthenware pie dish. In these it is carried into a drying stove heated by steam, and stacked there till the water has evaporated. Some of these ovens are so capacious that they will hold twenty tons of stuff. When the water has all evaporated, the lead is in the condition in which it is put on the market as a *dry white lead*. The after processes are very familiar ones, the dry white lead is put into a "pug mill" with the proper proportions of oil and thoroughly pugged or mixed together; then it is passed through granite rollers (Clarke's patent, of Southwark), whence it issues in the form of ground white lead, as we are familiar with it, is made up in casks and sent out to all parts of the globe. Messrs. Pontifex and Wood's lead is of such sterling excellence and quality that it is recognised as a standard of value.

Leaving the rooms devoted to the manufacture of the lead, we passed on to the general colour manufactory. In this department are made all the colours used by the painter, paper hangings manufacturer, coachbuilder, floor cloth manufacturer, confectioner, and all other industries in which colours are used; in this section of the works is also made the denounced arsenical Emerald Green. In one corner is placed a large vertical boiler, in which is extracted, from the chips of Lima peach wood, the colour known as "Rose Pink;" from the boiler the liquid product is carried into a large circular vat, where the chemical action takes place which results in the production of Rose Pink. Near to are a series of immense shallow vats for making Lakes in. Adjoining is the Carmine house, where this colour is made both for decorators and confectioners; also a large boiler, in which are made the Yellows used by confectioners. The Brunswick Greens claimed our attention, as did also the Yellow Chromes for their purity and brilliancy of colour. After leaving the colour department we proceed to the drying shed, a place of great extent, wherein the pulp colours are dried for the subsequent purpose of grinding in oil, or selling in their dry state. Beyond this shed lies the Blue house, filled with great vats, both round and square, in which all the Blues are made.

Following our guide, we next came to the Coloured Paint Works where the dry colours are first powdered by powerful edge mills, sifted through sieves driven by steam, and then ground with oil by granite rollers or flat faced stones. We were also shewn the oil refining room where great vats are placed for bleaching or refining the oil, prior to its admixture with the white lead and other paints.

The ready mixed paint department is of considerable size this being a branch of the paint manufacturing trade, of very recent introduction, but one that is expanding day by day to immense proportions. A visit to the Dropblack house and thence on to the Varnish and Stains manufactory, brought our tour of inspection to a close. We had seen many things that were new to us, and much that was of interest and instruction.

When next any of our readers sail down the "Father" of English rivers, if, as they are passing Greenwich Hospital, they will turn their eyes northwards to the opposite side, they will see what is familiarly known in the district by the title of "the pride of the Thames" This is nothing more poetical than a tall chimney stack of stately dimensions and noble proportions, belonging to Messrs. Pontifex and Wood's establishment, yet it is a very apposite illustration, and embodiment of the changed spirit of the age in which we live. The Thames' "ample breast" has borne upon its surface many and varied interests, and witnessed many startling transformations, but none more so, than the slow but steadily increasing recognition, which industrial enterprise is receiving day by day at the hands of mankind. The incidences and trappings of war are more showy and attractive to the shallow gaze, but it is to the toiling teeming masses of our fellow-countrymen in town and hamlet, that we must look for the explanation of the enviable position which this country holds amongst the nations. To-day, peers, and the sons of peers, are manufacturers, coal owners, railway directors, and merchants, and the spirit and tendency of the age is to more and more recognise the honour due to, and the nobility inherent in labour; and the proud position of "the first nation of the earth" will cease to be ours the moment we lose sight of this great truth.

OUR ILLUSTRATIONS.



OUR Illustrations this month consist of the First and Second Prize designs for panels of Drawing Room, in the recent Journal of Decorative Art Prize Scheme Competition. Class D, Section II., the Charlton Prize. The first prize design is by Mr. Arthur Church, Lillington-street, London, S.W. and was most carefully executed and harmoniously coloured. Our Illustration does not give the exact colours in which the design was carried out, but sufficiently indicates its character. The second prize design, as our readers will see is quite away from the former one, both in idea and treatment. As we pointed out at the time, the design is somewhat largely painted for door panels, and is better adapted for a frieze or a situation a little further removed from the eye. This design was by Mr. A. E. Hartley, York, both this and the first prize were executed in Charlton White, and showed conclusively that, this pigment is susceptible of the highest artistic treatment.

In a later number we are issuing the design which took First Prize in Section II., Class E., showing the

value of "Duresco" as a Decorative vehicle, this will be given as a double page, and printed in colours and gold.

In our next number we are giving a double page illustration printed in twelve colours and gold of which we have given notice on another page.

ART NOTES.

THE Academy Exhibition of this year, is not up to the standard of former ones. On walking through the rooms at Burlington House the thoughtful visitor is struck by the number of pictures (on the line) painted by "R.A's" whose reputations are being seriously damaged by these displays of octogenarian weaknesses and impotency, and by the fact that young men, whose future careers are full of promise are dispirited and discouraged at having their productions skied or rejected, owing to the space being occupied by paintings that, on their merits, would not obtain a footing in small provincial exhibitions.

IT is refreshing to turn from these products of feeble vanity to such forceful painting, as is found in H. Herkomer's portrait of Archibald Forbes, and Dr. Thompson, of Trinity College, Cambridge, or to the dignity of H. Stacey Marks, R.A.'s "The Lord Say brought before Jack Cade" (242), the quiet refined nobility of the captive, asserts itself over the noisy swaggering rebel, and you can almost see that he is conscious of it. Compare this with the senility of 235, "Housekeeping in the Honeymoon." "Wood" is the word that most accurately diagnoses the painting, notwithstanding that the magic letters of R.A. follow the painter's name.

THE number of portraits this year seem to be greater than ever, and with such men as W. W. Ouless, J. E. Millais, H. Herkomer, Frank Holl, and James Sant, we naturally look for work of a very high class, and in this we are not often disappointed in our expectations.

In the Architectural Room there is nothing of startling excellence, the principal decorative work displayed, being a design by E. J. Poynter, R.A., for the decoration of the dome of St. Paul's Cathedral, to be executed in Mosaic. We annex the description taken from the catalogue (1133); Mr. Poynter's work is so well known for its breadth of treatment and judicious arrangement of colours, that our readers must, aided by the description, imagine all that is desirable in the arrangement of such a theme, and they will form some idea of what the work would be if carried out in accordance with Mr. Poynter's design. "The model represents a segment comprising one-sixth of the dome, and is to the scale of 1½ inch to a foot. The dome will be divided into eight parts by upright architectural ribs. In each space between the ribs will be two large round panels, 20 feet 8 inches and 12 feet 8 inches in diameter respectively. The model shows two of these ribs and one of the spaces. Round the base of the dome, and supporting the circular panels, will be eight thrones or architectural seats, one of which is shown in the model, and contains the figure of St. John the Evangelist receiving inspiration to write to the seven churches (Rev. i. 11). On the corresponding seven seats will be the bishops of the seven churches. In a circle above all will be the four and twenty elders, four of whom are shown on the model. The circular panels and medallions will contain the visions of the Apocalypse. Of the large panels, the upper one represents the Vision of Christ in Judgment with the Book of Life open before him (Rev. xx. 11); the lower, the dead rising from the sea (Rev. xx. 13). In the small panels on the ribs will be visions of woes which fell on the earth. In the panel to the left the sun is darkened (Rev. vi. 12). To the right a burning mountain falls into the sea, which is changed into blood (Rev. viii. 8 and xvi. 3). In the medallion between the large panels is the angel with the censer (Rev. viii. 3). The corresponding seven medallions will contain the seven angels with the trumpets (Rev. viii. 2). The groups of figures on the ribs illustrate the chorus of praise to the Lamb which accompanies the fulfilment of the visions in the Apocalypse: 'Every creature which is in heaven, and on the earth, and under the earth, and such as are in the sea, and all that are in them, heard I saying, Blessing, and honour, and glory, and power, be unto him that sitteth upon the throne, and unto the Lamb for ever and ever. And the four beasts said, Amen. And the four and twenty elders fell down and worshipped him that liveth for ever and ever.' (Rev. v. 13, 14) The lower groups represent the holy on earth, and illustrate appropriate texts from the Psalms of Praise. Each group is accompanied by an angel or heavenly muse, who inspires them with the spirit of praise. Above are the angels who stood round the throne; alternately with whom will be the martyrs (Rev. vii. 9-12), symbolised by groups of three on each rib, with two youthful angels above on each rib. The whole is crowned by the circle of elders." (1128) A design for the decoration of a Study by Mr. Cole A. Adams, is but of indifferent merit, and what its claims are, to be admitted into the Exhibition we don't know. (1161) Wall Decoration Chapel Royal, Greenwich Hospital,—W. Homann and Son,—is a much better bit of work. (1187) Side of a Drawing-room executed by Owen W. Davies for G. Nossoti, Esq., is a beautiful sample of work in the "Adams'" style, and is exquisitively drawn and coloured. The wall is a full "gold" tone of colour, with a deeper shade of the same for the dado. The frieze, which is a deep one, is done a full tone of grey, with long narrow panels containing figures of children at play, done in light tints on a gold ground. The wall was spaced out by light graceful festoons, and panels suspended, by drooping ornament, and the effect as a whole was very beautiful. (1205) Ceiling decorations, in the Italian style, very good in feeling and successful in colouring. (1206) Decoration of Corridor at Frogmore, also in the Italian style, is a praiseworthy bit of work. (1104) Designs for a Frieze containing representative figures—Botany, Sculpture, and Music, by E. Page Turner, is a very good bit of work, the figures being very well drawn. Some cleverly drawn architectural sketches are to be found on the walls in this room. There is nothing of superlative excellence in decoration if we except Mr. Poynter's contribution—though if this special feature were more developed in this gallery, the country would be the gainers.

TECHNICAL Education, received a further stimulus in the opening of the new Institute at Bradford last week by the Prince of Wales. The forces in operation, both social and political, seem tending in the direction of forcing us in self defence to equip ourselves against our competitors, by the establishment of schools all over the country, with objects similar in purpose to the one opened the past week. If we are to continue to hold our own, something of this kind will most certainly have to be done, and the sooner our duty is made clear to us the better. Owing to the crush, attendant upon the opening ceremonies, we were unable to give anything like a fair inspection to the Exhibition itself, indeed many of the exhibits were in very incomplete state, but when they all get fairly settled down, a most interesting display will be the result. The remarks of the President, however valuable, were lost except to a few in the immediate vicinity of the speaker, but in his case deeds speak louder than words, and Mr. Mitchell's indefatigable energy, and untiring perseverance have been the main factors in the success of the scheme so far as it has gone. In our next number we shall give a full report of all exhibits, likely to interest our readers.

MR. SHIELDS, the well-known Manchester Artist, has for some time past been staying at the Devonshire seat of Lord Mount Temple, and has made good progress with the first part of the designs, he is preparing for the Duke of Westminster, for Eaton Hall. This series is one of the most important of our time and consists of some fifty large designs for stained glass, and a similar number, for the dark side of the chapel which will be executed in Mosaic. The subject chosen is a congenial one to Mr. Shields—the Te Deum—and those who have had an opportunity of inspecting the designs have been struck by their artistic force, no less than their deep religious fervour—a combination not so common in these days.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 214.)

CHAPTER XX.—MARBLES AND MARBLING.

MARBLE is defined as rock crystalised in a saccharoidal manner, (having the same sort of fracture when broken as lump sugar,) and is composed principally of carbonate of lime, either almost pure when pure white, or combined with oxide of iron or other minerals which give to each kind its peculiar distinguishing colour and markings. But under the name marble many other kinds of stones are generally included. Indeed any limestone rock sufficiently hard and compact to admit of being polished is called marble. It is only in this sense that the indurated amorphous rocks used in this country can be called marble. These are the black, red, gray, and variegated limestones of the old red sandstone period found in Devonshire, which are very beautiful from the number of exquisitely preserved corals which abound in them, the marbles of the carboniferous series from Flintshire, Derbyshire, and Yorkshire, so full of encrinites, the shell marbles from the oolite rocks at Rance, Stamford, and Yeovil, and the dark Petworth, and Purbeck marbles, beautifully figured with shells, from the Wealden strata, which were so much used by the architects of the middle ages. Statuary marble is a white pure-grained rock, resembling loaf sugar in colour and fracture, working freely in every direction, having no soft veins, therefore not liable to splinter, and hard enough to take a fine polish. Of the marbles used by the ancients the most famous is Parian marble a fine granular and durable stone. The finest Grecian sculptures were formed of this marble amongst others the famous Venus de Medici. The marble of Pontelicus was at one time preferred by the Greeks to Parian because it was whiter and finer grained. The Parthenon was entirely built of it, and many celebrated statues remain which were executed in this marble, but they have not retained the beautiful finish we see upon the Parian marble statues which have come down to our time. The quarries of Carrara were known to the ancients, but they have been more extensively worked by modern sculptors and the marble is now known by the name of Carrara marble. Of coloured marbles, with which we shall have most to do here, there are a large number. The requirements of modern building works in conjunction with the demand for coloured marbles for decorative purposes, consequent on the spread and immense increase of wealth, has created and fostered the taste for beautiful stones, which demand has been met by the opening out of quarries of coloured marbles, in all parts of the world. Italy produces a great number of the most valuable and most beautiful marbles, amongst which may be mentioned Sienna, Verd Antique, Rose or Rosso Antico, Giallo Antico, Nero Antico, Jasper, and numerous others. But as we shall give a description of each marble when we describe the method of imitating them, we shall content ourselves here with a general description of them.

Our English marbles are not very numerous although some of them are good in colour and well suited for architectural purposes. Devonshire produces some very useful marbles, amongst which are a black marble from the Billacombe and Pomphlete quarries, and a dark brownish mottled stone. A good green marble comes from the same quarries, and a good red marble from the quarries at Radford. Cornwall also produces some beautiful specimens in various colours, and a kind of Porphyry in several colours. Derbyshire also contains quarries of very useful marbles, amongst which are the Derbyshire spar, and the fossil spar; containing the fossil remains of shell fish, which appear on its surface (when polished) in various shapes, very interesting to the student of geology, and in fact to every intelligent mind. Scotland provides us with the grey and red granites in abundance, of which we shall speak elsewhere. Ireland furnishes us with a variety of useful marbles—black, green, and Irish Porphyry. The Irish green marble although a useful, is not a very beautiful one; some parts are however of exceptional beauty, as to colour. Irish black marble is generally of good quality, and is marked with fossils of a round shape. France and Belgium produce some good marbles, but Italy seems to be the land *par excellence* of beautiful marbles. Spain and Portugal also supply marble of various kinds. America has abundance of marbles but none of them so far as yet discovered, have any great beauty. They are admirable building stones, and are very much used for public buildings and private mansions, as well as for other purposes. It is quarried in the form of blocks of stone for building purposes, there being such immense quantities in America of what we may call common marble that they can afford to use it thus. But this is not the case with the coloured marbles of Europe, many of these being so costly, that they can only be used as veneers: the blocks being sawn into slabs of about one inch thick, these being secured by plaster or cement, to staircase walls, and pilasters. Others again are so rare, that only the very wealthy can afford to indulge in the luxury of purchasing them. The rarest and most valuable of these being the Lapis Lazuli, a beautiful blue marble, having fine gold ore running through it in specks and veins. It is from this marble, that the celebrated pure blue colour called ultramarine, is made. The stone is freed from the metal, and ground to an impalpable powder. It is the most costly of all colours, and is thoroughly permanent. It is the nearest approach to a perfect blue that has been yet discovered.

In the Ural mountains of Siberia are quarries of Porphyry, Jasper, and Agate, which are worked into stupendous columns, by machinery of the most ingenious construction. The labour required to cut out a solid column is enormous, and the workmen have recourse to a very clever expedient to lighten their labour. Having selected the portion of jasper

they want to separate, they drill holes a few inches apart along the whole length of the block, to the depth required. When this operation is completed, they drive into the holes thoroughly dried birch-wood trenails, on which they then pour a quantity of water. This the dry wood soaks up, which causes it to swell, and the lateral strength thus exerted throughout the whole length of the line simultaneously, rives the stubborn rock from its bed. The jasper thus obtained, is of a rich dark green colour, and enormous vases are made of it, notably one at Chatsworth the seat of the Duke of Devonshire, to whom the Emperor Nicholas made a present of it, being a personal friend. The beautiful marble (if it may be so called), Malachite, is also got from the copper mines of Siberia.

In describing the methods we have ourselves practised in imitating various marbles, we shall first describe those kinds which, from their character and colour, are best suited for using in large masses, for the decoration of staircase walls, large halls, vestibules, &c., &c. We shall then follow on with the still larger number which are only suitable for using on columns, pilasters, skirtings, inlaying, &c., &c., when comparatively small quantities are used.

Amongst the first class the following are the best and most suitable when used in large quantities :—

1. Sienna.
2. Italian Pink.
3. Breeche Violette.
4. Bardiglio.
5. White Vein.
6. Aberdeen Granite.
7. Grey Granite.

Those of the second class which may only be used in smaller quantities are as follows :—

8. Egyptian Porphyry.
9. English Serpentine.
10. Irish Green.
11. Verd Antique.
12. Vert des Alps, or Pyrenean Green.
13. Vert d'Egypte, or Egyptian Green.
14. Malachite.
15. Rose Antique.
16. Brescia Ficario.
17. Lapis Lazuli.
18. Breeche Imperiale.
19. Griotte.
20. Griotte Fleuri.
21. Rouge Jasper.
22. Jasper Rose.
23. Rouge Roi.
24. Rouge Fleuri.
25. Rouge Vert.
26. Brocatella d'Espagne.
27. Brocatella Violette.
28. Brown Brocatella.
29. Conglomerate.
30. Maulsort Marble.
31. St. Remy Blue.
32. Black and Gold.
33. St. Ann's.
34. Dove Marble.
35. Fossil Spar.
36. Kilkenny Black.

The above list are all useful marbles for decorative purposes, and we shall describe the best methods of imitating each one, as we ourselves have done them. There will no doubt be other methods of working, known and practised by such adepts as Kershaw, Nicholls, Taylor, and others who made the imitation of marbles their special study, and some of their methods may be simpler and even superior to those we have practised. But we beg the student to place implicit confidence in our instructions and follow them strictly, having in all cases when possible a specimen of the real marble he is endeavouring to imitate beside him. If he does this, and works conscientiously, we have but little doubt of his ultimate success. With regard to the real specimens of various marbles, there should be no great difficulty in procuring them either by purchase or loan. Any large firm of marble masons will have most of them, or will procure them. We give a few names of firms to which the student might apply with some prospect of success. For all Irish marbles apply to Messrs. H. Sibthorpe & Son, Marble Quarry Owners, Cork Hill, Dublin. For a general selection of foreign and native marbles the following would be the most likely firms :—Messrs. Farmer & Brindley, General Marble Contractors, 67, Westminster Road, London, S.E. ; James Houghton, 212, Great Portland Street, London, W. ; also, Patterson Brothers, Marble Masons, Oxford Street, Manchester.

We have before urged on the student of graining and marbling, the importance of studying and copying the real woods and marbles. It is only by so doing that a thorough knowledge can be obtained of the peculiar features of each marble and wood, for although painted examples to copy from assist the student in acquiring this knowledge if they are faithful copies of the woods or marbles they are intended to represent, still after all they are only copies and cannot be so useful as real specimens. We would therefore advise the student who is in earnest, to make every effort to obtain real specimens, as their importance as an aid to progress cannot be over-estimated.

(To be continued.)

MEASURING-UP AND PRICING PAINTING WORK.

"THE JOURNAL OF DECORATIVE ART" HOUSE PAINTERS' PRICE LIST.

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(Continued from page 215.)

MARBLING.

WALL SURFACES.	Per square foot. s. d.		s. d.
Sienna ..... from	0 6	to	1 0
Italian Pink ..... ,,	0 6	,,	1 0
White Vein..... ,,	0 3	,,	0 6
Bardiglio..... ,,	0 4	,,	0 9
Dove ..... ,,	0 4	,,	0 9
FOR PILASTERS.			
Jasper ..... ,,	0 9	,,	1 3
Rouge Roi ..... ,,	0 8	,,	1 2
Verd Antique..... ,,	0 6	,,	1 0
Egyptian Green..... ,,	0 6	,,	1 0
Pyrenean Green..... ,,	0 3	,,	0 9
St. Remi ..... ,,	0 3	,,	0 9
Black and Gold ..... ,,	0 3	,,	0 6

When any of the above are used as borders or inlays, they are charged for per lineal foot, and must be priced according to the amount of work in each lot and the time they take. Inlaying work is not unfrequently charged for as day work, much depending on whether the work done is of a broad or an intricate character.

ROOM MOULDINGS. (Taken from the price list of Levi Smith & Co., John Dalton Street, Manchester).*

	Per foot. s. d.
½in. wavy ogee	0 2½
¾in. ,, ...	0 3
1in. ,, ...	0 3
½in. half-round.....	0 1½
¾in. ,, ...	0 1¾
¾in. ,, ...	0 1¾
1in. ,, ...	0 2
Fancy Moulding .....from 2d. to	0 4

* The above are subject to a liberal trade discount.

PICTURE MOULDINGS.

Plain unpainted		0	3
Oak and Black	from 4½d. to	0	6
Oak and Gold	„ 4½d. to	0	6
Gold and Black	„ 4½d. to	0	6
Burnished and Mat	„ 4½d. to	0	6

Fixing is worth from ½d. to 1d. per foot additional.

OUTSIDE PAINTING.

Patching.—Allowance must always be made for pointing windows and doors, and patching cement work, when any.

Cornices, if plain and no blocks in, 8d. per lineal yard.
„ if blocks and very high and difficult of access, 1s. per lineal yard.

Window Sashes, two coats, from 1s. 6d. to 2s. 3d. each; Headstones and Sills, 1s. extra.

Sashes, if two coats and grained, 2s. 9d. to 3s. 6d. each.

Back Doors, plain, 1s. to 1s. 6d. per side.

Ordinary Front Doors, two coats and oak, 5s. 6d. to 10s. each.

Front Doors, two coats, plain and varnished, same price, as when plain the work has to be done much smoother.

Cement Work, two coats, 5d. to 7d. per square yard; three coats, 8d. to 1s. per square yard, according to the height of the walls, as very high buildings, run away with time for the ladder work.

We have now exhausted the list of prices which a decorator requires on ordinary work. Of course very high-class decorative jobs lie outside the scope of these articles, as they are generally priced (if estimated for) on their own merits, and each case is so distinct that we cannot lay down any rigid rule, but it must be left to the judgment of the individual decorator to approximate the cost. We would, in conclusion, reiterate what we said at the outset of these articles, viz., that good work deserves good pay, that the low prices that rule so much now-a-days are due to the pernicious habit of "cutting" which has obtained to such a degree of late years, and that the only way to combat this is by demanding, and standing out for fair prices, and doing good work.

TRADE INTELLIGENCE.

THE Employers' Liability Act was passed in 1880, and in 1881, the first complete year of its operation, 126 claims were made under its provisions, and as many actions entered in the County Courts of England and Wales. Of these thirty-two are still pending, fourteen were withdrawn before the hearing, ten plaintiffs were non-suited, in fifteen cases the judgment was for the employers, eight cases were struck out, four were settled out of court, one was adjourned generally, in three the jury were discharged without giving a verdict, and one case was stopped by the judge, who declared that there was no evidence of negligence. This reduces the number in which the plaintiffs recovered damages to twenty-two, or about one in six of the number of claims preferred. The claims advanced were for a total of £19,988; the amount recovered was £1,530 8s. 6d., or between seven and eight per cent of the sum to which the injured workmen thought themselves entitled. Of course this is exclusive of the amounts paid by private arrangement; but the result is not so great as might have been expected from the point that was made on behalf of the working classes as to the disadvantages under which they lay when they sought a change in the law. The suitors were, for the most part, willing to accept the decision of the judge without a jury, as only twenty-one juries were impannelled. The services of assessors were not required in any case. Ten cases were removed into the High Court of Justice. The amounts recovered ranged from 11s. 6d., which was all that was demanded for injuries sustained by a fall from a scaffold at East Stonehouse, to £250 for a similar accident at Bloomsbury. Injuries sustained from scaffoldings, from imperfections in machinery, by the carelessness of fellow-workmen, by the fall of walls and of parts of the workings in mines, from undue pressure of steam, from an explosion of dynamite—these are specimens of the origins of most of the actions.

MESSRS. RANDALL BROS. are making and selling a liquid paint drier which demands the attention of the trade, for the admirable properties it possesses as a strong, quick, and safe drier. We can confidently say this, because we have used it expressly with the purpose of testing it. In this respect it is all that the proprietors claim for it, and we are assured that there is not the slightest injurious action upon the paint. Its price is so moderate that it can be given a trial for a very nominal sum.

TURPENTINE, which went down to 37s. 6d. during the past month, suddenly went up to 42s. 6d. without any apparent cause. The present month, however, will see it considerably lower than this last figure, and we would suggest to buyers that they then lay in a stock, as the low prices we had a year or two back are not likely to be repeated.

MESSRS. T. WALTON & CO., of Sunbury, have produced some wood Dado mouldings, enriched with their special material, the effect is most excellent, and the cost comparatively nominal (7d per foot) for such results. We shall continue to iterate the value of Lincrusta, until the Trade take more notice of it than they now do. We recently saw some doors decorated with it, the material being fastened on the panels and painted a plain self-colour, the cost of each door including fixing and painting was not more than six shillings, and any customer would gladly pay 15s. to £1 to gain such an effect as was obtained.

ANSWERS TO CORRESPONDENTS.

J. R. E., ASHBURTON, DEVON.—We do not know the value of the paperhangings machine, not having tried it, but Messrs. J. Line and Sons would give you every information. We cannot see with you, in reference to the other question you name.

GRAINER, ———.—We would recommend you to Mr. G. Croker, Remington Street, City Road, London, whose marble panels took the second prize in our recent competition. We should think about 15s. each, exclusive of panels. We have on sale at the office, a work on marbles and woods, with six illustrations of the latter and seven of the former, the marbles being especially good. The size of the book is 18 by 12 inches, and the price is 35s.

C. ROSS, YORK.—An ordinary plain roof greenhouse, is measured solid, that is the entire length multiplied by the girth, then measure the ends and multiply them by the mean height, if the roof is of an elaborate character and difficult of access allowance should be made for the extra labour involved.

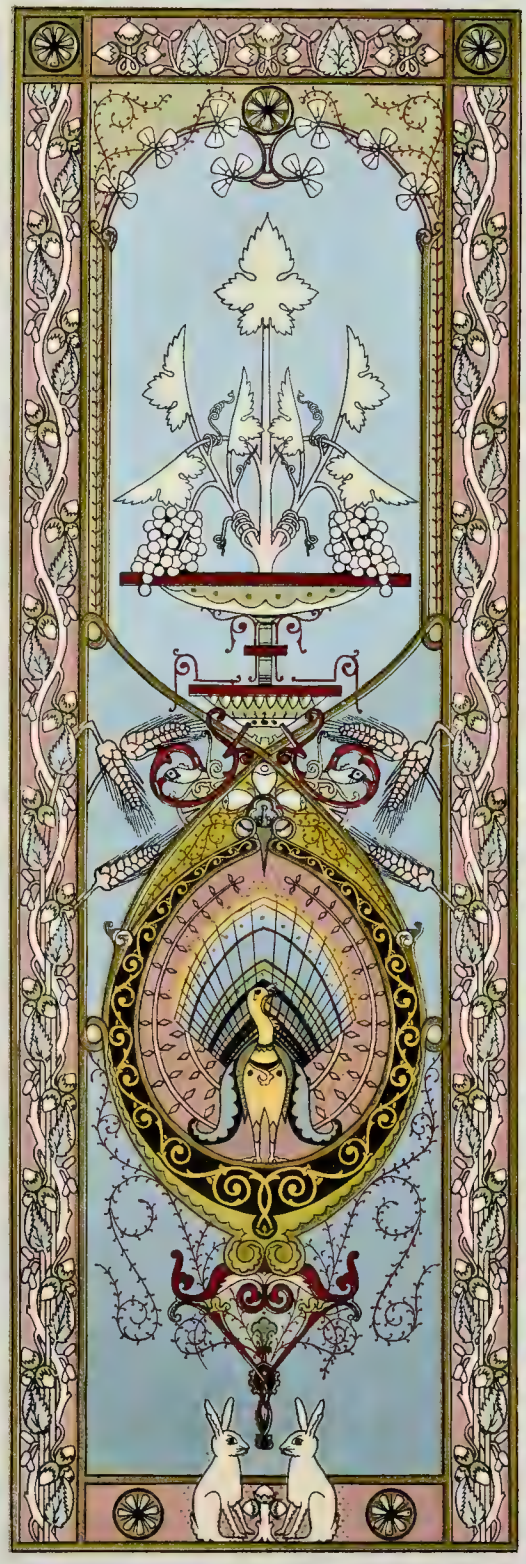
DOUBLE CT.—We don't know of any paint quite destitute of smell. The enamels made by Messrs. Griffith, Berdoe, and Co. are very quick drying and the smell is not in any way hurtful and passes off quickly. The same may be said of the Silicate Paints. The gold leaf can be bought ready transferred and the additional cost is so small and the gain so apparent that it is much cheaper to buy it in that form. Mr. James Smith, Bridge Street, Manchester, will supply it you. We will answer your third question in our next issue.

SITUATIONS.

We have on our books the name of a young man desirous of obtaining a situation as an improver in some good shop around London, and who is willing to pay a premium to a suitable firm. Full particulars can be obtained on application to the office, I, St. James's Square, Manchester.

We have the name of a second young man wishful to take a situation as an improver and willing to work for nominal wages for a place where he could see good work done.

☞ To save the trouble of correspondence we are willing to give free advertisements to employers requiring painters, grainers, and decorators, or men requiring situations. All names for insertion must reach the office not later than the 20th of each month.









DECORATION FOR DINING ROOM. FRIEZE, DADO &

W. Kleinertz Chromo Lithographer Manchester.

e Scheme Competition, March, 1882.
CLARK PRIZE, 1st PRIZE DESIGN.



OOR PANEL, By Ernest W. Beech. Lincoln Road, Peterboro.

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] AUGUST. [PRICE 9D. FOR AUGUST ONLY.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

TO OUR READERS.

WITH this number is issued a beautiful coloured plate, and the price of the journal for this month is 9d. Next month and forward we shall resume the normal price, 7d. We particularly wish our subscribers to bear this in mind as an impression seems to have obtained that we were permanently raising our price to 9d. per month this is not the case.

A WORD FOR THE TRADE.

THE most dominant and pressing demand of the age, undoubtedly is to be found in the domain of sanitary science. The exigencies of our life, due to the increasingly crowded state of our large cities; and the massing together in a limited area, of large numbers of human beings, renders the solution of this problem, one of increasing and ever constant anxiety.

The new conditions under which we live are daily developing new forms of disease, against some of which, medical skill and science, alike seem powerless. The last few years has witnessed the introduction to our midst of an enemy as insidious as it is deadly. Hardly any of our readers but can number from amongst their circle of acquaintances some one or other who is suffering from that ominous-sounding complaint yclept "blood poisoning; go where you will, through all classes and ranks of society, and you are sure to meet with some one who is suffering either personally or relatively from this new and terrible affliction.

We are disposed to the opinion that in many instances, this new terror is employed to cover the inability of the "doctor" to properly diagnose his patient's complaint; and, that being a vague indefinite and mysterious name, it serves the dual purpose of giving an air of cleverness to the practitioner, and covers his retreat from a position which he is unable to cope with.

But, admitting that the evil is of the extent that our medical friends would have us believe, and that thousands of men and women amongst us are the subjects of this fearful malady, and that in nine cases out of ten, the incipient stages are brought about by the gas from our sewers penetrating into our dwellings; and we have a condition of affairs terrible to contemplate, but one in which the painter confers a positive benefit on his species, by providing the most subtle test it is possible to have for detecting the presence of the insidious and deadly foe.

It is a common-place fact of chemistry that sulphuretted hydrogen (the scientific name for sewer gas) will turn paint made from white lead—that is, ordinary paint—quite *black* if it comes in contact with it in sufficient quantity: indeed, it is an experiment always shewn to visitors to any of the manufactories where zinc white, or white made from a zinc base, is manufactured. A jet of sulphuretted hydrogen is turned on to two surfaces, one painted with a white lead paint, and the other painted with a zinc white; the result is, that under the action of the gas, the lead paint is turned quite black in a few minutes, whilst the zinc paint retains its native whiteness.

Now what is the moral of the position? Briefly this, that we have about us in our homes on every hand, a foe rampant for evil, and in many cases we are innocent of its proximity until it reveals itself by attacking those nearest and dearest to us, and is never beaten off till incalculable mischief has been wrought; but side by side with it, we have, and have had for years without realizing its full value, the keenest and most sensitive barometer and indicator it is possible we could possess.

During all these years past, while the painter has been silently sitting down under the reproach of belonging to the category of things unclean, he has been giving the public—unwittingly, we admit—the means whereby they could have discovered the presence of the deadly gas in their houses, and possibly have warded off many a fatal result.

If the woodwork in such parts of the house where it is likely sewer gas will first shew itself, as for instance, cellars, bath rooms, and water-closets, be painted a very light tint of white lead paint, by careful watching it can soon be perceived whether sewer gas is present or no; if it is, discoloration will rapidly take place and hoist the danger signal; if not, then the paint will retain its original colour subject only to the darkening process which comes of usage and exposure.

The test can be rendered more complete and effective, if a portion of the woodwork were painted with silicate paint the same shade; because, resisting as it does the action of the gas, it would serve to emphasise more strongly, any discoloration that might take place. As an experiment, we would suggest discs being made and painted pure white with white lead paint, and across the centre, a band

of white, of silicate or "Charlton White" painted on them, these hung up in the bath room, w.c., or cellars, or in such places as are suspected of being inlets for sewer gas, would soon discover if there was any such gas present, and disclose the danger at once. We are glad at being able to thus draw the attention of the trade to an important scientific fact, of which for years they have been the unconscious demonstrators, and to place them where their position properly is, amongst the front ranks of sanitary reformers.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

(ALL RIGHTS RESERVED.)

CHAPTER XXI.—PAINTED ORNAMENT.

THERE are certain principles which should govern the application of painted ornament to the decoration of our dwelling-houses and public buildings which are either not properly understood, or are, in many cases, entirely lost sight of. These principles may be defined as fitness, adaptation of form and colour to the positions they have to occupy, harmony, correctness of drawing, and excellence of execution. No work can be successful without these qualifications.

Mr. John Ruskin makes some observations on modern room decorations which we cannot allow without question. He says (*vide* "The Two Paths," section 3): "You will every day hear it said that room decoration should be by flat patterns, by dead colours, by conventional ornament, and I know not what. Nobody ever yet used conventional art to decorate with who could do better. A great painter will always give you the natural art safe or not. Correggio gets a commission to paint a room of a palace at Parma. Any of our people bred in our fine modern principles, would have covered it with diaper; not so Correggio. He paints a thick trellis-work of vine leaves, with oval openings, and lovely children leaping through them into the room."

Fancy our English homes being decorated in this fashion. Could anything be more absurd? Vine leaves and trellis work, with even the loveliest of beautiful children continually suspended in mid air, may be in good taste at Parma, but would be terribly out of place in English dwellings. We prefer to see our lovely English cherubs jumping about the room instead of through the walls. In these matters we are but too apt to forget that the style of decoration suitable to the sunny climes of the south and east, and most in harmony with the habits and customs of its peoples, are in a great measure, if not altogether, unsuited to our insular situation and domestic habits. We may adapt them (or rather what is good in them), to our purposes; and we may derive many valuable lessons in form and colour from them, but to transplant them in their original form, is a grave error. The black dado, red pilasters, and frieze with yellow, blue, or white panels above, as seen in a Pompeian house, would look *outré*—out of place and tawdry—utterly foreign to our habits and to the style of our architecture. Again, we have the Moresque or Moorish style of decoration—a combination of some of the best features of the Egyptian, the Greek, the Roman, the Byzantine, and Arab styles; admirably adapted to the land of cloudless skies, where shade and coolness were a necessity, and only to be got by a particular style of architecture, with open courts for light and ventilation; but in our variable and muggy climate, where we have all too little sun, and plenty of rain and wind, such a style of decoration, is to say the least of it, unsuitable. Many of its beautiful geometrical diapers, and ornaments we may use with advantage, and the lessons in colour which it teaches cannot be over-estimated. But to make our rooms exact counterparts of the beautiful halls of the Alhambra—even if we could—would be simply ridiculous. We are aware that some of our architects and decorators have had, and in fact still have a Pompeian fever, and have painted black drawing rooms *à la* Pompeii. Notwithstanding such authority, we must consider them as—"mistaken souls who dreamt of heaven." As to Mr. Ruskin's assertion that nobody ever used conventional ornament if they could do better, we consider the assertion to be unwarranted by facts, and without meaning. If Mr. Ruskin means that no artist would use flat ornament if he could paint vine leaves and trellis-work, there is no truth in the assertion, as there are many artists who can paint more difficult things than vine leaves and trellis-work, who both design and paint conventional ornament; or if he means that an artist who can paint these things, would paint them as room decorations as being more appropriate than flat ornament, in that case the said artist's taste and knowledge, are both in fault, and his time and talent wasted; for it is a fundamental principle and an essential condition of all wall decoration that it shall form an unobtrusive background in contrast with all that comes against it, and this can only be attained by quiet flat treatment, and not by vine leaves and trellis-work.

It is a commonly received opinion in some quarters, that the man who can paint a picture, is the right man to decorate a room. As a rule there can be no greater mistake. There are, of course, exceptions to this rule, but it will be found that the two qualifications are distinct, and each requires a special education or experience. The man who spends weeks or months in the elaboration of a picture, will be too apt to treat his wall decoration in the same manner, and will shew a lack of breadth, a meagreness and poverty of colouring, and a finnicking littleness in his ornamentation, totally unsuited to the situation. This arises not so much from a want of knowledge of form or colour, as from a want of experience, or practice, in the handling of large masses of colour. It is something like engaging a miniature painter to paint the drop scene at Old Drury—his ideas do not expand; they are bound down to the minute forms he has been accustomed to, consequently he cramps everything he touches.

The naturalistic style of treatment as applied to house decoration, is, as a rule for general purposes, a mistake. It is not many years ago, since our paper hangings and wall decorations were treated in this manner, and we are sorry to see that there is a tendency to revert to the same style. We had our walls covered with large flowering patterns, in natural colours; many in Mr. Ruskin's favourite trellis-work patterns, with bunches of grapes and vine leaves in most admired confusion. Our very floors were covered with carpets on which were represented wreaths and garlands of flowers, and we trampled them under foot without the slightest compunction. Our interiors were bowers of roses and posies—pretty baby-houses all. At length a better and more sober tastes prevailed, and we began to see that a room to be beautiful and pleasant to sit in and to feel at home in, should be treated in a very different manner; that bouquets of flowers, and large masses of green leaves spotted over the walls, were distracting objects; that our eyes were fixed upon them the moment we entered the room, and so long as we stayed in it, turn where we would, they were ever present, producing a sense of oppression and weariness. A master-mind at length arose, who took the matter in hand. A series of patterns for wall papers was designed by the late Mr. Owen Jones, which completely revolutionised our ideas and practice. These papers, both in form and colour, were founded on the truest and best principles of Decorative Art as applied to domestic architecture; and although it is now many years since they were first introduced, they have never been surpassed for beauty of form and harmony of colouring, and for their adaptation to the purposes for which they were designed. They taught a lesson which our architects and decorators were not slow to avail themselves of, and as a means of purifying, directing, and elevating the public taste, their influence has been very great. Yet most of these patterns were designed upon the principle which Ruskin condemns, namely, natural leaves and flowers conventionalised. We are sorry to see at the present time the tendency there is to go back to this naturalistic and false style of decoration. Animals, vegetables, monstrous sunflowers, in all their gorgeous colouring, are being used to cover our walls with; fishes, sea weeds, and plants on dados; masses of foliage and birds of monstrous size, are here there and everywhere on the walls. Artists who should know better are pandering to this false taste, and making our rooms resemble a greenhouse more than a dwelling-room. Birds and flowers painted upon panels we have no sort of objection to, but we do strongly object to a room being made to represent a pond or river on the dado, a forest on the wall space, and a sky filled with birds, &c. We object because they are out of place, incongruous, and utterly destructive of that repose which is an indispensable quality of all good decoration.

It appears to have been forgotten, or else never to have been dreamt of in the philosophy of many of our art critics and "other fellows," that there is such a word in our vocabulary as the word "adaptation"—adaptation of forms to the particular purpose required, and adaptation of colour to the special circumstances of position and locality. Certain laws and rules are laid down, which are carried out under all circumstances and in all places. The folly and absurdity of this practice will be at once evident if we take a simple illustration as an instance. We will take a room whose walls are painted or coloured a tint of green of a brightish tone—a colour refreshing to the eye, and consequently pleasant if the room is placed in the midst of a crowded city, where a green tree or a blade of grass is a *rara avis;* we should feel its refreshing influence every time we entered it. If we look out of the window our eyes will rest most likely upon a dusky red-brick wall, not very clear or cleanly, perhaps, but looking much pleasanter from the force of harmonious contrast with the green walls of our room. On the other hand, if our room is situate in the country, where the look-out will be upon green fields or garden and lawn, and if we treat it in the same manner as the town house, we shall soon begin to find that we have no pleasure in it, because, when we turn our eyes outward, the natural greens of the grass, trees, and shrubs, will have a dull faded look. This effect would be produced by the necessarily large mass of bright green on the walls of the room, which would completely destroy our capability of appreciating and distinguishing the beautiful varieties of tints of green which Nature has so bountifully spread before us. Thus we see, that the same style of treatment as regards colour, may be truly harmonious in one situation, and utterly unsuitable, discordant, and out of place in another. Here also we may see the value of, and the necessity for, the decorator being able to adapt his colouring to the particular circumstances in which the object he has to decorate is placed. In our country house the colour of the walls should form an agreable contrast to its surroundings; warm colours may be used such as will cause the foliage and grass to look fresh and bright and pleasant to see. Not that even in this situation we need to discard tints of green altogether, for if we add sufficient red and black or umber to our green to neutralise its brightness and reduce its tone, we may have one of the pleasantest and most harmonious wall colours it is possible to make—a colour which not only produces a feeling of repose and quietness but contrasts favourably with furniture of every description of wood—oak, walnut, mahogany, maple, &c.; and almost any warm colour of drapery or hangings will harmonise well with it; the grass, trees, and flowers, and all pure greens, will look fresher and brighter by contrast with it. It is a colour that does not interfere with anything, but improves the colour of everything in its vicinity.

It is now pretty well understood, that the aspect of a room should, in most cases, regulate the degree of warmth or coolness of the colour used on its walls and in its furnishing. This is a true principle to follow in all cases where rooms have different aspects, but the majority of our town houses have but one frontage on which the best rooms are placed, having all the same aspect, consequently

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even this law must be moderated to suit our circumstances. Again, we shall find that there are many disturbing influences surrounding both town and country houses, which require a consummate knowledge of colours to overcome—reflected light, which makes everything look tawdry and garish; overshadowing of trees; the nearness of other buildings, and many other causes, tend to break down all rules, and leave all to the skill and experience of the decorator. We consider this power of adaptation to be one of the chief qualifications of the decorator's art, and all our individual experience goes to prove that although there are certain laws as to the proportion which one colour must bear to another in order to produce harmony (which laws are true in themselves), yet, like all other things in this world, they must bow to circumstances, and be modified in practice, otherwise discord will be produced. The decorations of a room should always be subordinate to its uses. This fact cannot be too strongly insisted upon. Common sense tells us that a dining room should not be treated in the same manner as a drawing room; a public building the same as a private one; nor a place of business in the same style as a theatre; but that each should have a special treatment of the kind best suited to the purpose for which it is used. Each may be beautiful and pleasant to sit or work in, and yet be totally different in character, and it is only by the exercise of good taste and sound judgment that this desirable result can be arrived at. How often may we see the same decoration in a dining-room and a common singing-room; or the same ornament used for a dwelling-room and shop-front; or Greek and Italian ornament in a Gothic house, and *vice versa;* and in other cases, a jumble of styles mixed together. These are errors which generally proceed from ignorance—none the less to be condemned on that account. The blunders committed with regard to colour, are quite as bad or worse. We commonly see green and blue mouldings and red back-grounds — retiring colours placed upon advancing members, and advancing colours on the sunken parts. A method of application of colour which utterly destroys the structural features of the moulded surfaces upon which it is used.

(To be continued.)

OWEN JONES & HIS CONTEMPORARIES.

Sir Henry Cole, K.C.B.

THE subject of our last memoir, from among the group of men who come under the classification of these articles, was A. N. W. Pugin. Pugin was essentially the artist. Sir Henry Cole's genius was that of an administrator and organiser. He was gifted with that faculty which perceives what is required to meet the necessities of the time and forestalls or rather guides, the public taste in the direction it is blindly seeking after; and, what was of equal service to him and importance to his country, was; that he was endowed with indomitable courage and faith in his own plans, and with an industry that hardly knew a limit; so untiring and persistent was it. His mind, belonged to that class, which intuitively discerns the right from the wrong on popular questions, and pursue it with unfaltering step, until the goal of their desire is reached. Sir Henry Cole, like all men who have initiated and conducted new movements of a national character, had to run the gauntlet of public criticism, which was meted out to him with the fulness and completeness of "candid friendship." The great work of his life, and the one with which the name will be more especially identified, is undoubtedly the National Training Institution at South Kensington, which will always remain a tribute to the accuracy and breadth of his judgment. The *Times* commenting on his death, very appositely says, "Great national movements, like that which has produced the South Kensington Museum and all that it represents in the social life of our time, are, no doubt, due to causes deeper and more universal than the energy of any individual. But the instinct is nevertheless sound in the main which identifies South Kensington with Sir Henry Cole as its creator and chief representative. He was amongst the first to discern and insist upon the paramount need for the organisation of national art, and the development of its relations to our national industry. He was the leading spirit and prime mover of the impulse which, beginning with the Exhibition of 1851 and earlier, has since produced such abundant results. We need only to reflect on the contrast between the present condition of national taste and that which prevailed not merely in the region of art itself, but in all the departments of technical industry in 1851, in order to form an estimate of the vast influence exercised by Sir Henry Cole. For certainly to him, as much as to any single man, the result is due, and it is only just to give the credit of the achievement to him who long had to bear all the discredit and obloquy of the original endeavour. When South Kensington was in disfavour, both with Parliament and with the public, no one ever hesitated to throw the weight of blame on the devoted head of 'Cole, C.B.' Now that it has taken its place among the most popular institutions of the country; now that its beneficial influence is universally acknowledged; now that the reproach that England was far behind other nations in the attention it bestowed on art and design has long been wiped out; now that the Museum of Science and Art bids fair to outstrip its most celebrated rivals in other lands, and is regarded, more or less, as a model by all; especially now when the prime mover in all this progress has passed away from our midst, it is only right freely and fully to acknowledge the debt which the art and industry of England owe to Sir Henry Cole."

We can only hope in this article to enumerate very briefly the principal points in the life of Sir Henry Cole.

Henry Cole was born in the year 1808 in the city of Bath, his father Robert Henry Cole was a

captain in the 82nd Regiment. At the age of nine, Henry was placed at Christ's Hospital to be educated, and here he remained until the year 1823 when he entered the public service under the Record Commission. In this service he remained for the extraordinary period of fifty years (with a brief interval of eighteen months) and when he retired in 1873 the Treasury awarded him a full pension, and two years later he was created a K.C.B. an honour which he accepted with much reluctance and only on the special request of Mr. Disraeli, that it was the Queen's desire that he should receive it.

The fifty years which his life as a public official covers, are perhaps the most fruitful of important events, of any half century in the history of the world.

Some years after his connection with the Records Commission, Cole was appointed an assistant keeper of the Public Records, and it was here, that the bent of his mind for organisation and administration first made itself manifest. He published a series of pamphlets showing how the service might be improved and systematised, and such was the influence which these exerted, that they mainly contributed to the reform in this department of governmental work which took place about the year 1840.

In 1840 he gained one of the four prizes of £100 offered by the Treasury for suggestions for developing the Penny Postage plan originated by Sir Rowland Hill. In connection with the adoption of this measure, Cole took a most active part in stimulating and creating a public opinion on the question. He devised and employed a most ingenious and successful method for ventilating the views of the advocates of reform. Under the then existing postal regulations, a newspaper after being once stamped was entitled to be reposted any number of times. At Cole's suggestion the Mercantile Committee on Postage issued a series of squibs, which they registered as a newspaper, showing the anomalies of the system; these were posted, read, and reposted time after time; thus the department itself was made instrumental in promoting its own reforms. Cole was endowed with a prodigality of energy, not content with the work at the Records Office, and the agitation on behalf of postal reform, he was at the same time contributing articles to the serial magazines and the daily papers, advocating educational, philantrophic, or commercial reforms and undertakings. He was connected with Sir William Molesworth and Charles Buller in starting the "Guide" newspaper of which Cole was editor, and he was afterwards editor of the *Historical Register*, and *The Journal of Design*. This latter, we have had occasion to refer to in our columns before. The aim and scope of it was admirable, and it was ably edited; contributions appearing in its pages from Owen Jones, Digby Wyatt, Richard Redgrave, and other equally well known and recognised authorities on ornamental and applied art. In comparison with the the technical literature of to-day, it of course lacks the finish and completeness of its later day rivals, but in its endeavour and the soundness of its instruction it could hold its own amongst many more pretentious efforts. Coles's activity brought him in contact with many men of note, and in the early years of his manhood he formed friendships, some of which lasted until the day of his death. Carlyle, John Stuart Mill, Thomas Love Peacock, Charles Wentworth Dilke, and many other names equally famous and distinguished in English history were his intimate friends. Under the well-known *nom de plume* of "Felix Summerly," lately—we believe, resumed in his edition of "Walker's Aristology, or the Art of Dining," written by the eccentric author of the "Original"—he published several handbooks to the National Gallery, Hampton Court, and other public exhibitions of art. Besides this, he published a work on "Light, Shade, and Colour," and edited a reprint of Albert Durer's "Small Passion," with reproductions from casts of the original wood blocks preserved in the British Museum, and he was also a frequent contributor to the *Westminster, British and Foreign*, and *Edinburgh Reviews*. He studied water-colour painting under David Cox, and with the permission of Dean Ireland made a number of sketches of Westminster Abbey, but it was not till the year 1845 that he began to work in the groove which he ultimately followed to such a successful issue. About this date he originated a series of small exhibitions in conjunction with the Society of Arts —of which he was a most active member—for the purpose of stimulating the interest of the public in the manufacturing industries of the country, and of forming a higher level of public opinion on such subjects. These small efforts were really the germ of the great Exhibition of 1851, an exhibition whose only claim to greatness lay in the complete exposure it made of our national degradation on all art questions as applied to industrial pursuits. But from this exhibition came the call which found Cole the vocation for which his special aptitudes peculiarly fitted him. Not the least important of the results flowing from the exhibition, was the reform of the Patent Laws, a result mainly due to Cole's initiative and untiring energy. In 1852, Lord Granville invited Mr. Cole to undertake the reorganisation of the Schools of Design, or Department of Practical Art, established in 1837; this was Cole's opportunity. The hour came and with it the man. Mr. Cole was at this time still attached to the Record Office; but relinquishing his appointment there for the new work he was called to take up, he devoted all his energies to the development of the art resources of his country, with what measure of success, the South Kensington Museum and Schools of to-day, with their auxilliaries widespread all over the country, are the best answer: a success due doubtless to many causes and agencies, but which is mainly the result of the singleness of purpose with which Mr. Cole identified himself with his work. It is his connection with South Kensington, and the work he there accomplished, which gives his name a fitness to appear in the company of such men as Owen Jones and Digby Wyatt. The '51 Exhibition, did us this great service, it opened our eyes to our own imperfections and needs in art education; it demonstrated with a clearness and precision which there was no evading, that in art matters we were about at as low an ebb as we possibly could be, and

that if we must emerge from the slough, it must be by some more united and systematic effort than had hitherto obtained. This view of the case pressed itself with great urgency on the minds of a few of the leading men of the country, amongst whom were H.R.H. Prince Albert, Lord Granville, Robert Lowe (Lord Sherbrook), Lord Salisbury, and other well-known men, and their influence backed up the daring enterprise of Cole, and unitedly bore down all kinds of opposition until they saw their work an established fact, taking its right place amongst the acknowledged educational agencies of the country. And what is more, they could point to a museum which is rapidly becoming one of the most interesting and valuable collections of Decorative Art in the whole world.

(To be continued.)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

(Continued from page 221.)

Common Charges.

SECTIONS and intersections, divisions of the shield by nearly all possible combinations of lines twisted in all kinds of shapes, could not satisfy the cravings of fancy, intent upon creating distinctions for branches of families, or original charges invented as heraldic badges for families newly raised to distinction. All that Nature possesses, all that the imagination could conceive or invent, or graphic art could delineate, was appropriated and pressed into the service of the science of heraldry, natural, artificial, even chimerical objects were used. Hence that infinite variety of common charges which have been and are used in the coats of arms of the nobility and gentry from the earliest times. The three kingdoms of Nature, animal, vegetable, and mineral, even the constellations, with all the starry hosts of heaven, the inferior works of man, nay, man himself and every one of the constituent parts of his body, had a place on the shield of the warrior, and thus in heraldry nothing was too great or too small to form a distinguishing badge of family distinctions. These are so numerous that our task would be an endless one if we were to attempt to give the whole of them in these articles. We shall therefore content ourselves with selecting, describing, explaining, and delineating those common charges most needful and useful for our readers to know, and chiefly those which have received a particular character from the seal and record of heraldic fancy. The majority of heraldic figures are not truthful or rather *fac simile* representations of objects, but are principally conventional representations, sufficiently near their original to convey to the mind the particular object or thing meant, as for instance, the lions of England are not natural lions, nor are the fleurs de lis, or lilies of France, the lily of our gardens. Heraldry in appropriating these objects or distinctive marks or signs, impressed upon them her own seal, and clothed them with her own livery. They have an indelible type belonging to themselves alone; and the perfection of heraldic painting principally consists in preserving in them this characteristic form and spirit or action. Many of these common charges have an exceedingly interesting history attached to them and their origin, when these can be incorporated in the text we shall have pleasure in doing so. Our first example is the anchor. This charge is universally known and used. It is symbolical of security (safe anchored), a symbol of hope also, so long as the ship holds to her anchor there is no fear. It is of course particularly connected and forms a part of the indispensable furniture of ships and boats, and in consequence is very often borne on the shields and coats of arms of naval heroes, men who have distinguished themselves by their bravery at sea. The anchor ought to be represented as shewn at Fig. 92, Argent, an Anchor, sable, and it also should be drawn in perspective; otherwise the stock being in a line with the flukes the bearing would never appear to advantage, as they are really opposite to one another. The anchor is often represented with a part of a broken cable entwined round the shank, and then it is blazoned a foul anchor.

Fig. 93.—Gules, an Antelope, armed, hoofed, and tufted, or. It will be observed that the antelope here depicted is widely different from the true antelope of the mountains and valleys. It is here shown having the body of a stag, the tail of the unicorn, and a tusk issuing from the tip of its nose. Both this and the natural form of the antelope are admitted in heraldry. If it were not for the two horns on the head it might be taken for the unicorn or heraldic tiger. Fig. 94.—Or, two single arches in chief, and a double arch in base, azure. These arches are a very old bearing and are supposed to represent pillars supporting a vaulted roof, and was very likely granted to or invented as an armorial bearing by some eminent architect of the olden time.

Fig. 95.—Azure, an arm in armour, proper, garnished, or, the fist clenched also, proper. It is supposed that this bearing has been first granted to some envoy or ambassador who had exhibited a degree of daring in asserting the dignity and power of his sovereign or nation when insulted or challenged by some foreign potentate, however that may be we may reasonably conclude that the clenched fist is an act of defiance.

Fig. 96.—Azure, an arm vested, cuff argent, the hand, proper, grasping a baton, sable, tipped of the third. The repetition of a colour or tincture is never allowed in blazoning, the words first, second, third, &c., are substituted in lieu of such repetitions. This bearing is a representation of authority, the baton being a symbol of command or leadership. Fig. 97.—Vert, an arm embowed and erased, in the hand a club, proper. This bearing is emblematical of warfare amongst savage tribes and was no doubt

first granted for some deed of bravery or daring exploit performed against Indians or other barbarians.

Fig. 98.—Argent, an arm in mail armour, the hand, proper, holding a staff, proper. This staff may be the staff or pole of a spear, as a flag or banner staff and may have been first granted to some celebrated standard bearer for some meritorious feat performed in battle.

Fig. 99.—Azure, in chief two sheaves of three arrows, argent, banded, gules, in base an arrow, or. The arrow is one of the earliest bearings we have any account of, it being one of the very earliest weapons of warfare and belongs to a period long anterior to firearms. In our own early history the bow and arrow were a formidable weapon and our English archers were famed for the strength of their bows and the accuracy of their aim. History relates how frequently the clouds of arrows sent against the enemy by the Kentish and other bowmen darkened the air, and often decided the fate of the day. The romance of archery is exceedingly interesting. Novelists and historians have written of the wonders performed by celebrated marksmen with the bow and arrow. In Scott's romance of "Ivanhoe" we have a wonderful picture of the accuracy of aim acquired in the use of this weapon. Amongst the games and pastimes for proficiency in which prizes were given at the celebrated tournament of Ashby de la Zouch were some for skill in archery. The archers who competed for the prizes offered had shot three arrows each and amongst them was one named Hubert who was proclaimed the victor. But standing aside and taking no part in the sport was an archer named Locksley. Prince John seeing him stand there and having taken a dislike to him on account of some words he had spoken about King Richard whom John was intriguing to supplant, charged the yeoman with being afraid to compete. But it was ultimately arranged that Locksley and Hubert should shoot together and he who was the best shot should be rewarded, Prince John telling Hubert that he would fill his buglehorn with silver pieces if he beat the other.

So the former target was now removed and a fresh one of the same size placed in its room. Hubert, who was victor in the first trial of skill, had the right to shoot first. He took his aim with great deliberation, long measuring the distance with his eye, while he held in his hand his bended bow with the arrow placed on the string. At length he made a step forward, and, raising the bow at the full stretch of his left arm till the centre or grasping place was nigh level with his face, he drew his bowstring to his ear. The arrow whistled through the air and lighted within the inner ring of the target, but not exactly in the centre.

"You have not allowed for the wind, Hubert," said his antagonist, bending his bow, "or that had been a better shot." So saying, and without showing the least anxiety to pause upon his aim, Locksley stepped to the appointed station, and shot his arrow as carelessly in appearance as if he had not even looked at the mark. He was speaking almost at the instant the shaft left the bowstring, yet it alighted in the target two inches nearer to the white spot which marked the centre than that of Hubert.

"By the light of heaven," said Prince John to Hubert, "an thou suffer that runagate knave to overcome thee, thou art worthy of the gallows."

Hubert had but one speech for all occasions. "An your Highness were to hang me," he said, "a man can but do his best. My grandsire drew a good bow at Hastings."

"The foul fiend on the grandsire and all his generation," interrupted John. "Shoot, knave! and shoot thy best, or it shall be the worse for thee."

Thus exhorted Hubert resumed his place, and, making allowance for a very light wind which had just arisen, shot so successfully that his arrow alighted in the very centre of the target.

"A Hubert! a Hubert!" shouted the spectators. "Hubert for ever!"

"Thou canst not mend that shot, Locksley," said Prince John with an insulting smile.

"I will notch his shaft for him, however," replied Locksley, and letting fly his arrow with a little more precaution than before, it lighted right upon that of his competitor and split it into shivers. The people who stood around were so astonished at this wonderful dexterity that they could not give vent to their surprise in the usual manner. "And now," said Locksley, "I will crave your grace's permission to plant such a mark as is used in the north country, and welcome every brave yeoman who shall try a shot at it to win a smile from the bonny lass he loves best." He then turned and left the lists to cut a willow wand from a neighbouring bush. Locksley returned immediately with a willow rod about six foot long, perfectly straight and rather thicker than a man's thumb. He began to peel this with the greatest composure, observing, at the same time, that to ask a good woodsman to shoot at so broad a target as had hitherto been used was to put shame upon his skill. For his own part, he said, and in the land where he was bred, men would as soon take for their mark King Arthur's round table, which held sixty knights around it. A child of seven years old might hit yonder target with a headless shaft; but, added he, walking deliberately to the other end of the lists and sticking the willow wand upright in the ground, "He that hits that rod at five score yards I call an archer fit to bear a bow and quiver before a king, an it were the stout King Richard himself."

"My grandsire drew a good bow at the battle of Hastings and never shot at such a mark in his life, and neither will I. If this yeoman can cleave that rod I give him the buckles; or, rather, I yield to the devil that is in his jerkin. I might as well shoot at the edge of our parson's whittle, or at a wheat straw, or a sunbeam as at a twinkling white streak which I can hardly see."

"Cowardly dog," said Prince John. "Sirrah Locksley, do thou shoot, but if thou hittest such a mark I will say thou art the first man that ever did so."

"I will do my best, as Hubert says," answered Locksley, "no man can do more." So saying he again bent his bow, but on the present occasion looked with attention to his weapon, and changed the string. He then took his aim with some deliberation, and the multitude awaited the event in breathless silence. The archer vindicated their opinion of his skill; his arrow split the willow rod against which it was aimed. A jubilee of acclamation followed.

Again there is a fine description of the flight of arrows when Rebecca, the Jewess, is standing at the window of the tower of Front de Bœuf's Castle, describing to Ivanhoe, who is wounded and a prisoner, the progress of the siege by the Black Knight and the archers led by Locksley.

"What dost thou see, Rebecca?" again demanded the wounded knight.

"Nothing but the cloud of arrows flying so thick as to dazzle mine eyes and to hide the bowmen who shoot them."

We need not therefore wonder at the arrow being adopted as an armorial bearing.

(To be continued.)

THE annual Conversazione of the Society of Arts at South Kensington Museum, on the 13th June; passed off very successfully. The music was good, and plenty of it, and between the "Guards" and the Hungarian Band, and the Royal Criterion Handbell Ringers and Glee Singers, varied by Miss E. Hopekirk's pianoforte recitals, there was sufficient entertainment to pass a very pleasant evening, but when added to these, there were the ever fresh charms of the Museum itself, he must have been a dissatisfied nature indeed who went away disappointed.

DIVISIONS OF THE SHIELD.



Fig. 92.—Argent, an Anchor, sable.



Fig. 93.—Gules, an Antelope, armed, hoofed, and tufted, or.



Fig. 94.—Or, two single arches in chief, and a double arch in base, azure.



Fig. 95.—Azure, an arm in armour, proper, garnished, or, the fist clenched, also proper.

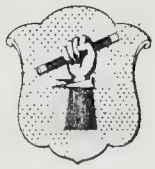


Fig. 96.—Or, a cubit arm vested, cuff argent, the hand, proper, grasping a baton, sable tipped of the third.



Fig. 97.—Vert, an arm embowed and erased, in the hand a club, proper.



Fig. 98.—Argent, an arm in mail armour, the hand, proper, grasping a staff, azure.



Fig. 99.—Azure, in chief two sheaves of three arrows, argent, banded, gules, in base an arrow, or.

OUR ILLUSTRATIONS.

THE illustration which we publish this month, is the first prize design in our recent competition at the Agricultural Hall, and was designed and executed by Mr. Ernest Beech late of Lincoln Road, Peterboro', but now, we believe, in Doncaster. Mr. Crace awarded the 1st prize to this design on several grounds, first and generally, on the ground of executive excellence, the work being very meritorious in this respect. Secondly on the ground of design; there is a great amount of thought imported into the work, the idea of the DINING ROOM is maintained right through the design, and in the general spirit of the design, there is a consistency and thoroughness which is very praiseworthy. There is not a bit of slovenly work in the whole lot. We were unable to give the bottom panel to the door, without reducing the size of the Dado and Frieze considerably, and this we did not feel justified in doing. The remaining panel is carried out in the same character and style as the top panel. The colouring of the whole design was very "sweet" and harmonious. By a careful examination of the drawing, it will be seen the great amount of work the artist has thought fit to put in the design. In the door panel we have the Peacock as the leading idea or motive conventionalised and yet preserving its individuality. The stately bird we may take as representing the courtesies and ceremonies of the Dining Room. These are gracefully surrounded and surmounted by the wheat and the vine, the first suggesting the necessities and the second the luxuries of the table, whilst the whole is surrounded by a border of filbert nuts, reminding us that after dinner comes dessert.

In the divisions of the Dado we have fish, fruit, and game represented in a very clever manner, the balance between the two panels containing the fruit and the game being very well preserved, whilst the artist has boldly faced the difficulties the fish presented and placed them in a series of "vandykes." The minor accessories of the design bear equal evidence of thoughtful attention.

In the Frieze we have the Owl as the leading and central figure, and lest the delights of the table should become too absorbing, a good wholesome maxim is written on the top reminding the onlooker that there are higher heights to be scaled, and deeds to be accomplished, than we have yet attained to.

> We live in deeds, not years; in thoughts, not breaths;
> In feelings, not in figures on a dial;
> We should count time by heart throbs; he most lives
> Who thinks most, feels the noblest, acts the best.

We must again give a word of praise to Mr. Kleinertz, our lithographic printer, who has taken such pains to produce a facsimile of the design, and with results that speak for themselves. We have in preparation to be given in some subsequent number the design for the "Reredos" executed in "Duresco" and printed in colours and gold concerning which we shall make an announcement in some later issue.

A BRUSH WITH THE PAINTER.

Is it not funny, by the way, that a rope should be a painter? It is enough to make a fellow ha hawser. But let us be sober if you are, you think, cable.

The panther is sometimes called a painter, but this is a beastly use of the name.

The painter is not exactly an artist. Ah! 'tis too often the latter is but a painter.

The painter hides a good deal of cheap work. It fills me with pain-ter say this.

The painter shows his gilt in a great deal that he does.

The painter is usually of an inoffensive nature, though he is almost always ready for a brush.

When he is painting a sign it is a sign he is painting.

The painter is a man of letters. He is a wonderful speller. He can show you specimens of orthography that can be found in no dictionary.

His strong point, however, is punctuation. If you will study some of his signs, you will see the point where there is none, and *vice versa*.

The painter clothes our habitations with coats. Jacob was a painter. He gave to his son Joseph a coat of many colours. When they went to their work Jacob made Joseph carry the Potiphar away.

When the painter comes to your houses, children, he mixes his paint as he uses it. The painter mixes in the best society.

The painter is not what you would call a flatterer. He is a plain going fellow, and attends only to his work. He never "lays it on thick," as the saying is; but he will sometimes come the putty over you.

The painter is generally a glazier also. They are not all so.

His best-laid plans gang aft agley, sir.

That variety of painter known as artist loves to speak of his "creations." They are undoubtedly his, inasmuch as they are unlike any natural creations. His creations are mainly unnatural.

Though a man of colour, the painter is a colourless subject, children, and therefore, let us drop him.—*American Furniture Gazette.*

M. MUNKACSY'S SKETCHES.—An attraction has been added to the exhibition of M. Munkacsy's picture of "Christ before Pilate," at the Conduit-street Galleries. The original studies for the great work are now on view, and are peculiarly interesting both from their intrinsic merit and their connection with the finished picture. Specially noteworthy are the four studies for the face and figure of the Saviour. It is no secret that here lay the greatest difficulty of the artist. To produce such a figure of the Redeemer, worn and refined, but not aged by suffering, and human enough, yet not so fleshly as to obscure its divinity, at once pitying God and suffering man, so as to express every spectator's idea of Christ, is no light task for a modern artist of intensely realistic tendencies. Of the four studies, two are robed in red, one in white, and one in green, the latter of which appears to us infinitely superior to the weaker figure actually introduced into the picture. Concerning the other studies there is plenty of room for diversity of opinion. The larger and more finished sketch for the exulting Money-changer, closely followed in the picture, is in every respect a remarkable work, both for intensity of characterisation, breadth and boldness of treatment, and richness of colour. Looked at as a whole, it is perhaps the most thoroughly Rembrandtesque figure produced in this present age. Very good in their way, but lacking the astounding force of the Money-changer, are the studies for the Doubting Assessor and the Accuser, who calls for judgment from the reluctant but time-serving Prætor. Taken altogether, M. Munkacsy's sketches are worthy of attentive study, and are almost as interesting to the amateur as to the working artist. We understand that M. Munkacsy is now busily engaged on a companion picture to "Christ before Pilate." "The Crucifixion" is a painfully sublime subject which has been treated so frequently by artists of the first rank that its rendering at the hands of the great Hungarian painter will be looked for with no common eagerness by the artistic world.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 227.)

CHAPTER XXI.—MARBLES AND MARBLING.

IN the series of marbles we are about to describe, there are a number of what are called veined marbles, that is to say, marbles which are cut up and their markings defined by coloured lines or veins, of which class the common white vein marble is a good type. All of these have a distinctive character of their own, and an individual form which invariably distinguishes the one from the other. These marbles appear to us to have been at one time in large sheets, blocks, and slabs, then to have been broken up again by some convulsion or upheaval of nature, as ice breaks up, into all sorts of sharp angular pieces, some large, some small; the smaller pieces being floated or washed in between the larger pieces, filling up the interstices and broken parts, and to have then been petrified again. From a long and close study of the nature of marbles, we are led to think that it is in some such manner that all marbles have been formed. But however they have been formed originally, their surface marks, when they take the form of veins or lines, are best imitated by the use of crayons. This method of working, is far superior to the plan of putting in the veins or markings with the pencil, it is superior to the pencil in the fact that it works better and more freely ,and we can give the peculiar character of each marble with greater exactness and with more fidelity to nature. The other tools required for the purpose of imitating the different marbles enumerated above, are—First, a hog-hair softener, which is made in the form of the badger-hair softener, this is a very important and indispensable tool and should be made of the very best white or grey bristles, these should be about four to five inches long, straight and compact, having a good spring and perfectly level at the end, and should be purchased from the best makers, a shilling or eighteen-pence makes all the difference between a good and a bad brush, the latter being by far the dearest from every point of view. We would therefore advise the student to procure the best tools as he will do better work thereby. He will require two or three different sizes, one five inches, one three, and one two inch, the smaller one being for the purpose of working upon parts on which it would not be possible to use the larger ones: but for the purpose of study and practice, one three inch would be all that he will need. These like every other new tool, will of course; work all the better after being used for some little time. Second, we shall require several flat tin tools made of camel's hair and of different sizes, from one and a half inches wide in the hair, to half an inch. Third, several feathers from the wing of a goose. Fourth, several flat and round hog-hair fitches of various sizes. Fifth, a badger-hair softener. Sixth, various tube colours for glazing and putting in the fine touches. Seventh, several sponges of various sizes. These sponges should be of the coarsest kind, very open and full of irregular sized holes, they should however be of the very best kind, a coarse sponge is not of necessity a poor sponge, but for the purpose required, they must be of the character described above, but tough and strong, so that they may be used with oil and turpentine colours and bear washing with soft soap and warm water repeatedly, a poor sponge will not allow of this usage. In purchasing these, it is the best plan to buy them at a wholesale warehouse, with the sea sand in them; as many of the sponges hawked about by Jews and others, are poor rotten things; many of them having been used in hospitals, and worn out and made rotten by acids which have been used to purify them. Pencils and swan quills we shall of course require, and the coloured crayons named above, with crayon holders to hold the crayons when in use. As these coloured crayons cannot be purchased (so far as we are aware) we have been in the habit of making our own, and we shall here describe the best method of making them, so that they will work freely and not smear or spread in softening.

In choosing the black crayons before named, it is only those of a dull or dead black, that are useful for working on paint, if they have the slightest gloss or glaze, they will be too hard and will scratch the work.

For the making of the coloured crayons, we shall require a quantity of the best and finest washed pipe-clay, which may be bought from any tobacco-pipe manufacturer of which there are some in all large towns. It may also be purchased in the common provision shops, or of oil and colourmen, but this is in all cases, adulterated with gypsum, (plaster of paris) or whiting, consequently is not so good for our purpose. The principal crayons required for most marbles are as follows, viz., No. 1, black. No. 2, a dark colour, made with drop black, Indian red, and ultramarine blue, forming a dark purple brown in use, this is used for all dark veins. No. 3, this crayon is made from Indian red and light red (burnt ochre). No. 4, Indian red and Oxford ochre. No. 5, made with Oxford ochre and a little orange chrome with a touch of Indian red, forming a light warm yellow tone of colour. No. 6, is made with blue black with a little ultramarine blue and light red added, to form a light warm grey. The above-named crayons will be about all that will be required for any of the veined marbles.

The process of making these coloured crayons is as follows:—the pipe-clay is scraped or shredded to a fine powder, and made into a thick paste with water. To this is added some shreds or scrapings of common white soap, which is well worked into the paste with a knife; we then add the necessary colours in the form of a dry powder ground very fine. We continue adding the dry colour until the paste becomes stiff, about the consistency of dough for bread making; it must be well kneaded and

worked with the hand like stiff putty, if not stiff enough, more pipe-clay may be added in the shape of a dry powder. We then roll it into a cake about the thickness we want the crayons to be when finished, while it is in this form, we cut it into strips about a quarter or three-eights of an inch square. We then take a piece of flat smooth wood, and roll each strip with it, this gives it a round form, and also makes the crayons more compact, and homogeneous. We now cut these strips into convenient lengths, from two to three inches, and place them upon a board to dry, in a situation where they will be subjected to a gentle heat, in order to dry them. If they are made too hot, it will spoil them. Before drying the whole, it is best to dry a little first, and try how it will work. If the crayon crumbles and breaks easily, more clay and soap must be added. But if they are too hard, and do not work freely, more of the colour and clay must be added. When they are thoroughly dry, they may be squared by rubbing on sandpaper laid flat on a board or table, and should be then put away in a wooden box and covered with cotton wool in order to prevent them from shifting about and thus getting broke. This is the more necessary as it will be seen from the ingredients used that they will not bear much pressure, or knocking about, in fact, if they were hard they would not answer the purpose for which they were made. It will also be perceived by the intelligent reader, that the depth or strength of colour of any of these crayons will depend upon the amount of colour mixed with the clay, as the pipe-clay acts to a certain degree in the same manner as whiting acts in distemper colours. Any shade or depth of coloured crayon may be made according as the colour, or the clay, preponderates; but the soap adds very much to the tenacity of the clay, and will allow a very much greater quantity of dry colour to be mixed with it, and yet be fine and hard enough to work with, than if no soap were used: in fact, they would be no use without the soap, as it not only helps to bind the whole together, but causes the lines made on the paint with these crayons to keep firm and yet soften and blend as much as is required. A large size of crayon holder will be required, as there is an advantage in having these crayons thicker, and larger, than the ordinary crayons sold in the shops; and the oblong or square form is better than the round, as by a twist of the crayon in using, a broad or a fine line or vein can be made at pleasure. One great advantage the crayon has over the pencil in marbling, is the fact, that we can use it in all directions, draw it along from left to right, as with a black lead pencil, or push it forward, backwards, and sideways, in a series of quick movements, which would take treble the time with the pencil and not be half as free and natural. We have therefore, no hesitation in placing the crayons before any other method of imitating veined marbles.

In preparing the grounds for imitation marbles, it is essential that they should be got up in as level and smooth a manner as possible. One special feature of real marbles, is their beautiful polish, and this polish is a result of smoothness or "flatness" of surface: in the first instance, marbles could not be polished except they were first brought up to a level surface. So it is with the imitation, except the ground be level and comparatively smooth, the imitation will not be good at the finish. It will be seen therefore, how important it is, that in preparing grounds for marbling upon, they should be made as smooth as possible, as nothing adds so much to the beauty of the finished work as a level surface. If the surface is level to begin with, smoothness or polish may be obtained afterwards, but if it is not level at the commencement no after labour can rectify the defect. In getting up the ground for all the veined marbles, which as a rule are all of a light colour (or comparatively so) it is important, that a good body of white, should be laid on the work, because, all the colours put on afterwards, in the process of marbling, will be purer, more transparent, and will keep their colour longer on a white ground, than on any other colour. And for all marbles in the doing of which crayons are used, the last coat of white should be flatting, lightly and carefully stippled, as the stippling makes a slightly granular surface upon which, when hard, the crayons will bite, or mark easily, which they would not do upon oil colour. The flatting must not be thick, to make a rough surface, but only of sufficient body to give a dead surface.

(To be continued.)

THE RUSKIN CREED.

THE following is the creed which, with the promises founded on it, it is prescribed by Mr. Ruskin must be written out in his or her own hand, and signed, by every person proposing themselves for a member of the St. George's Guild and forwarded to him as the master.

I.—I trust in the living God, Father Almighty, Maker of heaven and earth and of all things and creatures visible and invisible. I trust in the kindness of His Law and the goodness of His Work. And I will strive to love Him, and keep His law, and see His work, while I live.

II.—I trust in the nobleness of human nature in the majesty of its faculties the fulness of its mercy and the joy of its love. And I will strive to love my neighbour as myself and even if I cannot will act as if I did.

III.—I will labour with such strength and opportunity as God gives me for my own daily bread, and all that my hands find to do I will do with my might.

IV.—I will not deceive or cause to be deceived any human being for my gain or pleasure nor hurt or cause to be hurt any human being for my gain or pleasure nor rob or cause to be robbed any human being for my gain or pleasure.

V.—I will not kill nor hurt any living creature needlessly nor destroy any beautiful thing but will strive to save and comfort all gentle life and guard and perfect all natural beauty upon the earth.

VI.—I will strive to raise my own body and soul daily into higher powers of duty and happiness not in rivalship or contention with others but for the help delight and honour of others and for the joy and peace of my own life.

VII.—I will obey all the laws of my own country faithfully and the orders of its monarch and of all persons appointed to be in authority under its monarch so far as such laws or commands are consistent with what I suppose to be the law of

God and when they are not or seem in anywise to need change I will oppose them loyally and deliberately not with malicious concealed or disorderly violence.

VIII.—And with the same faithfulness and under the limits of the same obedience which I rendered to the laws of my country and the commands of its rulers I will obey the laws of the Society called of St. George into which I am this day received and the orders of its masters and of all persons appointed to be in authority under its masters so long as I remain a companion, called of St. George.

TRADE INTELLIGENCE.

We are pleased to hear that Mr. T. B. Tylor's varnishes are making their way, and being more and more appreciated in various parts of Lancashire. We don't wonder at this; our experience of Mr. Tylor's manufactures extends now over some ten years, and we have always found the goods sent out by him to be of sterling excellence and quality.

Last month we made a short note of Randall's Patent Liquid Paint Drier; subsequent experience of it only confirms what we then said, and we consider it an *indispensable article* of a painter's shop. We revert to it again because we think the trade ought to know its value.

Messrs. Crowden and Garrod have added another plume to their trophy—already large—by the Gold Medal which has just been awarded them at the Christchurch International Exhibition, New Zealand, for the excellence of their manufactures in painting brushes; good material and good workmanship can hold its own against the world.

Messrs. J. B. Orr & Co.—The Silicate Paint Company are just issuing small books showing the various tints "Duresco"—the new washable distemper—is supplied in. These are very convenient for slipping into the pocket, if a tradesman wishes to submit tints to a customer. Messrs. J. B. Orr & Co. will forward them post free to any master painter writing for one and using the name of the *Journal of Decorative Art*. It is needless for us to re-assert the value of "Duresco" as a decorative medium; the more we use it, the more we like it.

There has been a most abnormal lull in trade the last six weeks, large numbers of men being out of employ. We have heard great complaints from travellers of the scarcity of orders and the equal scarcity of cash. Reports from Yorkshire are more encouraging and trade there seems in a healthier state than in other parts of the north. The unsettled state of affairs in the East, and the doubtful harvest prospects don't in any way minimise the difficulties.

To Cleanse a Soiled Chamois Leather.—Many workshops contain a dirty wash-leather, which is thrown aside and wasted for the want of knowing how to clean it. Make a solution of weak soda and warm water, rub plenty of soft soap into the leather, and allow it to remain in soak for two hours, then rub it well until it is quite clean. Afterwards rinse it well in a weak solution composed of warm water, soda, and yellow soap. It must not be rinsed in water only, for then it would be so hard, when dry, as to be unfit for use. It is the small quantity of soap left in the leather that allows the finer particles of the leather to separate and become soft like silk. After rinsing, wring it well in a rough towel, and dry quickly; then pull it about and brush it well, and it will become softer and better than most new leathers.

ANSWERS TO CORRESPONDENTS.

Double C. T.—We are indebted to Mr. Orr for the following answer to your enquiry:—"Turpentine gives off vapour which is a powerful oxydizer, and would be sure to affect the Zinc Can just as the tin one. What we do with our turpentine is to put it into an iron cistern which has been well coated with alcoholic varnish, and we find this to work well."

Pro Bono Publico.—The spirit-colour we use for stencilling on distemper ground is made of the ordinary flatting, mixed with turpentine and a little varnish, or Japanners' gold size to bind it. In answer to your second query—the enamel colour spoken of in the article named for obscuring glass, and putting an ornamental pattern upon it, is a semi-opaque mixture of various ingredients which must be subjected to great heat in the muffle in order to secure it to the glass, and is only used by firms who manufacture this special kind of ornamental glass, such as Chance Brothers of Birmingham, Pilkington and Co., St. Helens, and others. It can be bought at Messrs. Brodie and Middleton's, Long Acre.

H. H., Exeter.—In all cases when setting out a dado on a staircase the border follows the skirting line. Sometimes when the skirting up the stairs and at the different levels makes curves, the dado borders are mitred at the junction of the straight with the "rake,"—this is altogether incorrect and is resorted to either in ignorance or to avoid trouble. In the case you cite follow the sweeps of the skirting. As to setting out the dado on the rake, a very convenient and sure method is to take a T square, and resting the broad end on the skirting, mark out the height of the dado from the gauge marks taken from the level on the straight, this ensures accuracy of setting out. When the diaper or ornament of the dado is *vertical* in its character, this must be preserved even when on the rake, in some cases this is done by having the leading or main ornament enclosed in narrow panels which when they come to the staircase part proper, the angles which they make top and bottom are filled in by ornament of a minor character and value, and thus the vertical lines are maintained throughout.

CORRESPONDENCE.

To the Editor of the Journal of Decorative Art.

Dear Sir,—In your very practical article on graining, you recommended students in the art to get patterns of the real woods; I did so and at once saw the advantage of so doing, as some of them were very different to what seems to pass as a good job here, especially the bird's eye maple, and I may here say that I am extremely grateful both for your articles and advice. Now, you advise the same course with the marbles, and as I was in some doubt as to getting them here, I visited the principle marble yards in this neighbourhood (there are but two), and was shown some white with patches in it like dirt as big as your fist, and some sienna which is different to anything called sienna I ever saw before, and the red and grey granites, which I believe were very good, also some enamelled slate chimney pieces in black and gold, &c. In your paper you give the names of some firms in London from whom the marbles can be got, but it is doubtful if they would care to go to the trouble of sending the small orders your readers would require. Now, what I want to suggest is that you supply those of your readers that wish to have them, and charge a fair profit for your trouble. If the patterns came direct through you, it would inspire confidence and I believe would be a great boon to a great many of your subscribers. If you do not see your way to do this kindly, say about how large we should require the patterns, and by so doing you will greatly oblige a

Warwick, July 19th, 1882. Constant Reader.

[In reply to our correspondent's suggestion, we will make the necessary inquiries and if we find we can supply samples of the real woods and marbles at anything like a reasonable cost, we shall have pleasure in supplying them to our subscribers, being convinced that it is only by studying from real examples that a true and exact knowledge of the characteristics of each can be attained.—Ed., "J. of D. A."]

☞ To save the trouble of correspondence we are willing to give free advertisements to employers requiring painters, grainers, and decorators, or men requiring situations. All names for insertion must reach the office not later than the 20th of each month.

Vol. 2, No. 21, Sept. 1st, 1882.





W. Sutherland, Invt. A. A. Sutherland, Delt.

STENCILLED DECORATION FOR DOOR PANELS.

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] SEPTEMBER. [PRICE 7D.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

(ALL RIGHTS RESERVED.)

CHAPTER XXII.—DECORATIVE PROCESSES: GILDING ON GLASS.

SO many of our subscribers have requested us to describe the best methods of writing, gilding, and ornamenting on glass, that although it is not in accordance with the programme we had arranged, to take up the subject at this stage; yet we have decided in deference to these urgent requests, to describe the various processes here instead of further on.

Gilding upon glass with gold and silver leaf is a means of decoration which has obtained a very wide and extensive application, and although the art in practice hitherto has been confined to a great extent to sign-writing alone; we believe it will eventually have a much wider application for decorative purposes than it at present obtains. Sign-writers seem to have a monopoly of the art, and we are rather inclined to think that this fact has something to do with the neglect or indifference with which it is treated by purely decorative artists. It is true that Japanners make much use of glass-gilding for inserting into various domestic utensils, for drawing and dining-rooms, fancy boxes, photographic glasses for framing, and other useful and ornamental objects, but we think the work capable of being used for a much higher class of decoration, if properly and artistically handled; beautiful contrasts of dead or matt and burnished gold, of several tints or shades of colour may be done with perfect impunity from danger of tarnishing, as the glass protects the gold, or silver, from the influence of the atmosphere, and in fact, if the work is properly done, there is no limit to the time it will last. If the painted side of the glass is kept from direct injury by being scratched or chipped we can see no reason to doubt its being as little liable to decay as any kind of painting which can be done; indeed we may say, it is less liable to decay, inasmuch as it is protected by the glass in front, and by the wood boards or glass at the back, thus rendering it impervious to the action of foul air or any other deleterious matter, and making it a permanent decoration which will remain for ages fresh and clean, as on the day it was done. It may be cleaned without injury, and is suitable for any position. The polish of the glass will no doubt appear to some persons to be an objection to its use in some situations and for some purposes, but we think this difficulty may be in a great measure obviated by a judicious use of colour. Wall paintings have occasionally to be covered with glass to protect them from atmospheric influences — a notable example being some frescoes in the Lobbies of the Houses of Parliament. Now we see no valid reason why works of a high class may not be painted in such a manner or by some method, whereby they could be easily transferred to the glass after being painted. It is a common practice to paint a figure subject or a landscape in oil, either upon silk, canvas, or paper, to cover it with varnish, and while the varnish is wet the painting is put upon the glass, all the air being carefully pressed out from between it and the glass, and thus secure the painting to the glass. If we were to paint directly on to the smooth glass with solid colours as on canvas, we only produce raw garish-looking work, simply because we cannot glaze or put on the finishing touches which are so important to the finished effect of an oil or water-colour painting. But we see no real difficulty in transferring finished paintings to the glass in the manner directed.

Decorative ornament and decorative design afford a wide field for its application, but necessitate the most careful treatment, in order to avoid vulgarity. The glass lends such splendour to the gold and colours, that it is very difficult indeed to avoid garishness, but when the colouring is kept quiet, and in perfect harmony with the gold and silver, we obtain a richness of effect, and a perfection of finish scarcely possible in painting on any other material. We cannot see any objection to this style of decoration being used for the panels of doors, &c., in combination with embossed ornament. The friezes of the entablature of our doors, wall panels, certain portions of ceilings, panels of side boards, wardrobes, book-cases, etc., on all these, suitable designs on glass might be introduced. Its brilliancy and permanent character should be a great recommendation. It is true there is an objection which some are ready to urge against our view of this matter, namely, the risk of breakage, but the same objection might be used against thousands of beautiful ornaments in glass and porcelain, and pictures, and everything it is possible to break by carelessness or ill-usage, for it is quite certain that the force required to break a plate of glass a quarter of an inch thick, would most certainly knock a hole through canvas; but putting that aside, we might with equal force apply the argument to all articles of *virtu* which are made of glass or clay. Bohemian glass, Sèvres china, Majolica ware, and

mirrors, with all the thousand gems of Art we prize above rubies and fine gold.

Chemists and druggists make great use of this style of decoration. The large show jars (specie jars) seen in their shop windows, having the Pharmaceutical Arms and various signs of the Zodiac, and numerous other nondescript designs and legends emblazoned upon them are, gilt, etched, and coloured in this style. All designs and inscriptions done upon the glass have to be done backwards way, that is, they have to be done on one side of the glass to be seen and read upon the other side. This is not so difficult as it seems at first sight in working upon flat surfaces, but in the case of the large specie jars spoken of above, the design and letters, in addition to being done backwards, have also to be done upside down. The design has to be worked through the opening at the top of the jar, which, of course, is very much smaller than the body of it—increasing the difficulties tenfold. Many of these designs comprise figures of men, animals, reptiles, birds, &c., and when we consider that these are shaded and etched, and coloured, with the figures and letters upside down, the arm being thrust through a hole at the top, and that the form of the glass is cylindrical, we must give the artist very great credit for the pursuit of Art under such difficulties. Many beautiful designs, being combinations of ornament and letters or inscriptions, are done on glass in this style for the decoration of the exterior and interior of shops, very large sums being expended by enterprising tradesmen for this purpose, for which it is admirably suited in every way—door and window plates of glass, instead of the ordinary engraved brass plates. It is a mistaken notion that brass plates for business purposes are the cheapest and best in the end; this is not so. If we only take into consideration the difference in the time required to keep them clean, we shall find that the advantage is immeasurably in favour of the glass. In fact, we are convinced that the whole of the original cost of the work is ultimately saved in this item alone; and if we contrast the appearance of the two, and the variety of treatment the one is capable of, but which cannot by any possibility be applied to the other, we shall find that every consideration is in favour of the glass. This being the case, when this style of work is applied to business purposes, we think the fact a further argument in favour of gilding and ornamenting on glass being used to a much greater extent, and for a higher class of decorative work than it has hitherto been. When the gilding and silvering is done in combination with embossing, very beautiful effects may be produced; for instance, if we take an embossed plate, having the whole of the glass obscured except the ornament, and then gild or silver the ornament alone, a chaste and beautiful effect is produced, but this will require the embossing to be cut sharp and clear at the edges. The gold will not be so clear and bright as upon the plain glass, but if in addition to the ornament we leave a plain line of the untouched or clear glass, about one-eighth of an inch wide, round the embossing, we thus get a brilliantly-burnished line against the dull gold of the embossed parts, which has the effect of matt and burnish. This cannot be done when parts of the glass are burnished, but we can get the effect of the obscured glass by glazing in a square of ground glass against the gilded and embossed sheet, and with coloured grounds, without the ground glass.

Having described some of the innumerable uses to which this work may be put, we now proceed to describe the best methods of working, prefacing it with the fact that we have ourselves executed hundreds of pounds worth of such works, so are thus enabled to speak with authority on the subject. Gilding on glass differs from all other kinds of gilding. In gilding by any other process, the medium or size for securing the gold leaf to the object to be gilt, is invariably laid on first, and when the size has arrived at a certain state of dryness the leaf gold is applied, thus the surface of the gold is left clean and free from any foreign body; or the size is put on and left to dry, then wetted and gilt. But in the process of glass gilding, the size or medium is between the gold and the glass, and consequently can only be seen through that medium. It will be at once evident that the smaller the quantity of material between the gold and glass, and the more transparent it is, the more brilliant the gold will appear through the glass; therefore it is the object of the gilder on glass to so manipulate his size as to leave the least quantity possible between the gold and glass. All kinds of semi-transparent gelatinous substances, and endless experiments have been made, and numberless methods been tried to accomplish this desirable object in the best manner, with, of course, varying success, but in every case the indispensable substance required has been the best isinglass. All the experiments and methods have had but one object in view, namely, to purify and make the isinglass more transparent. Of these methods, it will suffice if we say that some persons recommend whisky, spirits of wine, etc., to be mixed with the isinglass. One receipt which is considered of great value is to add to the isinglass a certain quantity of the water in which a Spanish onion has been boiled, with a little nitric acid added. We have tried all these things, and have found that nothing surpasses the pure solution of isinglass properly and cleanly manipulated. We procure the best Russian isinglass—if it is good it will be colourless and will completely dissolve in water without leaving any sediment, and will be clear as the water itself. We have found that rain-water is better for our purpose than the ordinary tap water, as it is free from contact with leaden pipes, and has less foreign matter in it. We take an enamelled pan perfectly clean and free from grease, into this we put a pint of pure rain-water, let it boil, and should there be any scum, skim it off with a clean spoon. We then add a few shreds of isinglass, let it dissolve, and again skim (if required) the water. The isinglass should then be poured into a clean earthenware vessel, and will have a slightly yellow tinge. This size must now be strained or filtered through the best white blotting paper, such as the chemists use for filtering purposes, and when it is cool it is ready for use.

(To be continued.)

THE JOURNAL OF DECORATIVE ART PRIZE SCHEME COMPETITION, MARCH, 1882.

THIRD PRIZE DESIGN, SECTION I., CLASS A.





DESIGN FOR DADO DECORATION FOR DINING-ROOM, THIRD PRIZE.

DESIGNED AND EXECUTED BY GEORGE GOFF, KIRKBY STREET, NOTTINGHAM.

OWEN JONES & HIS CONTEMPORARIES.

Sir Henry Cole, K.C.B.

Continued from Page 234.

IMMEDIATELY after the close of the '51 Exhibition, Parliament voted a specific sum for the purpose of making purchases from the works therein displayed. Five thousand pounds was the amount devoted to this object, a sum small as it may now appear, which was not bestowed without considerable misgivings on the part of many. This was expended as follows: from the foreign side of the Exhibition, £2,075; from the British side, £893; and from the East India Company, £1,501. The official report which embodied the results of those purchases, says, "In forming this collection the Committee looked to its becoming the nucleus of a museum of manufactures, which may have its connection throughout the whole country, and help to make our Schools of Art as practical in their working as those of France and Germany." Not only was the movement thus begun, valuable to the country in a direct way, but its indirect influence was equally beneficial; in raising the tone and character of our general educational system. At the time when Cole took over the superintendence of the School of Practical Art, there were about twenty schools of design and about 5,000 pupils spread over the three kingdoms; to-day there are over 4,700 elementary schools where 768,661 children are instructed in the art of drawing, in addition to 640 art classes with 26,700 pupils, and 151 schools of art with 30,300 students. Figures like these are eloquent of what has been accomplished, but equally important with these results in our estimation is the museum which has been established at South Kensington where the best works of the best men of all nations are brought together, either actually, or in *replica*. The value of this cannot be well overstated. This museum had its first beginning at Marlborough House, and was opened on September 6th, 1852, nearly thirty years ago, to the articles bought by the Commissioners was added a number of objects lent by Her Majesty the Queen, while some rooms were set apart for the exhibition of casts; this department was under the direction of the late W. R. N. Wormun. The Baudinel collection was also purchased in 1852, and a selection to the value of £8,500 was bought from Mr. Bernal's collection in 1854. In 1855 purchases were made by Cole and Redgrave from the Paris Exhibition, of which Cole had been appointed British Commissioner. But one of the most important of the Museum's acquisitions, made chiefly through the assistance of Mr. John Webb, was that of the Soulages collection.

Over this purchase Cole had a great contention with the Treasury; but nothing daunted by the obstacles and difficulties they placed in his way, and possessing the complete confidence of his chiefs, Cole persevered until success crowned his efforts. By dint of continuous effort, never flagging; never losing heart or faith in the sufficiency of his schemes; he beat down one obstacle and difficulty after another until he won public opinion to his side, and reaped the guerdon of his efforts by seeing his plans succeeding to an extent he could hardly have dreamt of when he first originated them. Through much obloquy, in face of opposition in high places, in the teeth of a criticism that was at times bitter, and even malignant, Cole held on to his plans; and to-day we are reaping the benefit of his far-seeing industry. On every hand, in the workshop, in our public schools, in our large manufacturing industries, and in the public taste itself; we cannot fail to observe the growth which has taken place in the knowledge of general art matters, and especially in all the industries into which taste and design enters, we no longer lie under the reproach of being the most degraded (in an art sense) of the nations of Europe, but instead, we find disseminated, a taste and public opinion on all such matters, that has created and fostered the production of art industries which to-day proudly hold their own against any country of the world.

Almost into every household in the country has the influence of the movement which he largely initiated penetrated. How far this is due to South Kensington and the influence it represents, and how far to causes which lay dormant at the time and which have since asserted themselves and found their own channels, we are not yet capable of determining, but to Sir Henry Cole and his coadjutors remains the credit of pioneering the movement which has been so resultant for good.

It was due to Cole's increasing energy that the Science Classes were grafted on to, and made a part of, the Government Educational Scheme at South Kensington, the expansion which this underwent may be gathered from the following statistics: In 1859 the first examination of teachers of science was attended by 57 candidates, and saving the Navigation School, which had been placed under the South Kensington Department, there were virtually no science classes. There are now some 1,400 science classes attended by 60,890 students. In 1852, says the *Builder*, his official coadjutors and assistants could possibly have been counted upon the fingers of one hand whilst the amount of money granted by Parliament for prosecuting the education of the country's taste in decorative and industrial art could be written in four figures. In 1873 when Sir Henry Cole resigned his office at South Kensington a single successor was not forthcoming, and it is significant of the extraordinary development of the system he had organised, that the work which had centred in him was enough to occupy four persons supervised by the Secretary of the Education Department. Thus the general secretarial work was conducted by Mr. Norman Macleod, the work of the science department by Colonel Donnelly, that of the art division by Mr. Poynter, R. A., and that of the custody and exhibition of the collections at the Central Museum and of the circulation of objects into the provinces by Mr. P. Cunliffe Owen who was knighted for services in connection with the International Exhibition in Paris in 1878. The

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Parliamentary vote for Science and Art and the Kensington Museum had in 1873 risen to close upon a quarter of a million of money. These facts may serve to indicate how the seed sown in 1852 had by indomitable energy and popular appreciation grown with vigour into a great system of roots and branches which the unintelligent carpings of quasi professors of the "dismal science" had naturally been powerless to affect. Indomitable energy was personified in Henry Cole, and with humour a member of the legislature remarked in the early days of South Kensington that there could be "no steam without Coal."

(To be continued.)

OUR ILLUSTRATIONS.



OUR Illustrations for September consist of a double-page containing four Panel Decorations, being the top and bottom panels of an ordinary door of stock sizes such as are made by thousands. The style of the ornament is similar to those of which we gave examples in the Journal of Decorative Art for August and October, 1881. Our subscribers have spoken so highly of their practical value and usefulness, that we have been induced thereby to issue those in the present number. These are first drawn of the full size required and then photo-lithographed down to their present size. We thus ensure a proper and correct proportion, so that they may be easily adapted by making them so many times larger, in accordance with the panels upon which they are being used. These designs may be worked in various ways—simply stencilled in black on citron and brown grounds, or upon oak. They may also be stencilled on any coloured ground in graduated tints, and will look well on a cream-coloured ground, with deep dull gold colour for the stems and parts of vase and lines, and graduated tints of pink and yellow, green and purple for the ornament and part of vases. These may afterwards be outlined with a fine outline in dark brown. Or they may be done in gold and outlined, on any coloured ground. There are, of course, a variety of ways in which they may be treated, according to the taste and skill of those who work them out.

As occasion suits we shall give more of these workable designs, in a different style to those we have given, but equally simple, and easy of application.

Our second double-page is the design for a dado sent in in competition, in connection with the Journal of Decorative Art Prize Scheme Competition in March last. A full description of it will be found on page 183 in the April number. The design, which is by Mr. George Goff, of Nottingham, gained the third prize, value £4.

TECHNICAL EDUCATION IN MANCHESTER.

ON the 9th of last month a meeting of gentlemen was held in the Mayor's Parlour in the Town Hall, under the presidency of Oliver Heywood, Esq., J.P., to consider the best means of promoting technical education in Manchester. The meeting was the result of a prior gathering which had been held at Mr. Heywood's private residence, Claremont, Pendleton. Mr. Heywood's efforts on behalf of education in Manchester are too well known to call for comment, and if he succeeds—as we have not the slightest doubt he will—in this latest attempt to establish a technical institution worthy of so important a city as Manchester, it will be a fitting and proper complement to what he has already done. It cannot be denied that, if we are to maintain our position as a manufacturing and commercial nation, we must adopt other methods and ways than we have hitherto been content with, and this can only be accomplished by raising the intellectual calibre of our artisan class. The meeting which assembled on the 9th ult. was of a provisional character, its main object being to elect a committee which should formulate a scheme to lay before the Manchester public. It is proposed to utilise the building known as the Mechanics' Institute (which hitherto has been used as a general educational institution), as the *locale* of the new institution; thus, as several speakers pointed out, reverting to what was the object originally contemplated and embodied in the trust deeds. The chairman and subsequent speakers emphasised the fact, that in the new departure it is not for a moment contemplated that trades should be taught, but that it shall be the aim of the institute to teach the principles that underlie the various industries. In so doing the committee have our hearty support, and are, we consider, acting at once wisely and judiciously. It is not a lack of clever, executant workmen that we suffer from; it is the fact that too many of our artisans perform their work in a mechanical and perfunctory manner, without any knowledge of, or disposition to inquire into, the relations which the materials they use hold to other materials, their strengths, their compositions, where they are obtained from, where they are destined for, and, indeed, that general knowledge with which the workman is better able to execute even the mechanical portion of his work, and without which he is little more than the machine which he uses. The aim of the new institution will be to train our artizans to a scientific apprehension of their respective employments, on a like basis to that which is already being done in London, Oldham, Bradford, and elsewhere. In this endeavour the committee will command the support of all loyal citizens, and especially of those who are interested in the various crafts and trades. When the scheme is before the public we shall revert to it again, and do our utmost to further its adoption. No small credit in the matter is due to Mr. Reynolds, the active secretary of the institution, who for some time past has in a quiet way been promoting the scheme which is now about to see light in a more complete form.

A VISIT TO THE YORKSHIRE VARNISH COMPANY'S WORKS, RIPON.



YORKSHIRE is famous not only for its numerous, important and varied manufacturing industries, for its commercial, political, and intellectual activity, for its public enterprise and spirit, but equally for the beauties of its natural scenery, its hills and dales, its rivers and brooks, its woods and glens, its ruined abbeys and castles, its churches and cathedrals, and indeed for all those delights that minister to the higher side of our nature.



The political economist may find ample food for enquiry in the industrial centres of this great county; the social reformer will here meet with much to encourage him in the prosecution of his favourite ideas. The lover of nature may roam the wide world over, without meeting with anything more beautiful than the valleys of the Wharfe and Ure, and the district about Skipton, Ripon, and Bolton, whilst Scarborough and Harrogate give to the seeker after health fresh leases of life. In its cathedrals and churches, its minsters and abbeys, the archæologist, the antiquary, and the artist will find endless amusement and instruction. The greatest of all the English counties in geographical extent, it is second to none in point of beauty or interest.

The district of Yorkshire in which Ripon is situated is the most beautiful of this beautiful shire; whilst other parts of the county possess more grandeur and boldness of character, for a combination of gentle undulating and well-wooded country scenery, this part is not to be surpassed, if equalled.

The first impression the traveller gains when he steps out from the station is, that he has left the strife and turmoil of the great cities behind, and has at last lighted on a haven of peace.

The scene is at once picturesque and impressive. In the immediate foreground, at the foot of the hill on which the station stands, flows the river Ure, spanned by a noble bridge built of stone, and composed of no less than seventeen arches; whilst right across the valley, placed on the highest ground in the city, in its calm majesty and silent beauty, stands the Cathedral.

Ruskin, says somewhere, that the most complete work of man is a boat, as evidencing at one and the same time the greatest fitness for its purpose and the use it has to be put to, and the successful surmounting of natural difficulties. Without entering into the merits of the question, and conceding at once that such is the case, we may surely claim that in point of usefulness, and in the subjugation of natural forces and difficulties, the bridge stands next to the boat (as an element of beauty in a landscape, it has been always recognised by artists of every country, and of all times) whilst next to the bridge, ranks the Cathedral and Church — the former, perhaps, of all man's work, the one which most fills him with a feeling of half-awe, half-wonder, at the skill of his fellow man. With these three conditions of a beautiful picture, with the additional charm of the river winding along its course like a silver stream of light, breaking in upon the quiet of the scene with its murmurs amongst the pebbles and stones that impede its onward flow; with a belt of noble trees encircling the distant fane; and with an atmosphere at once placid and clear, enfolding the landscape as with a garment, we have a picture that ravishes the eye of the artist as he gazes upon it.

After lingering for a short time to take in the beauties of the scene, we wended our way through the town—which in its quiet activity is in marked contrast to the busy din of our large manufacturing cities—and found ourselves absorbed in the contemplation of the "poem in stone," yclept the Cathedral. The charm of Ripon Cathedral is in its proportions and its simplicity. Compared with such a structure for instance as Ely, it is both small in size, and bald in its details, but it has compensations in the greater purity of its style and homogeneity of its parts. Passing from the Cathedral precincts, through one of the gates devoted to the use of the officials, a slight sketch of which we give at the head of this chapter, we find ourselves in the High St. Agnesgate, along which we pass to the Low St. Agnesgate, where is situated the offices and main entrance to the Yorkshire Varnish Company's works. In former times Ripon was celebrated for its spurs. Later years have seen the development of another industry which specially appeals to the readers and subscribers of the *Journal of Decorative Art*—namely, the manufacture of varnishes. Several firms are to be found here, the principal however being the one whose name stands at the head of this article—The Yorkshire Varnish Company.

A casual traveller would pass unheedingly the old-fashioned house, in which are placed the offices of the firm; and would probably, if he thought anything at all about it, conclude it was the residence of some of the dignitaries of the Cathedral, under whose serene shadow it lies. Leaving the offices, which are light, cheerful, and commodious, we pass under the low broad gateway and find ourselves in the presence of—what? A manufactory certainly, but a manufacture conducted with such systematic precision, such departmental

isolation, such scrupulous cleanliness, and amidst such artistic and beautiful surroundings, that, almost involuntarily we congratulated Mr. Binns, the proprietor, on having at last found the missing link between the necessities and exigencies of manufacturing, and the immediate contiguity of the beauties of nature. As Mr. Binns remarked, the presence of beautiful natural forms, the sense of quiet and repose imparted by a beautiful broad sward, surrounded by gay borders of flowers, and dotted here and there with trees casting their grateful shadows across the grass, whilst in the centre a fountain of water is constantly playing, cooling the air by its showers of crystal spray—cannot fail to lessen the friction incidental to any business of a manufacturing character, and exert an influence of a directly educational kind on those brought in contact with it. Such an establishment would meet the fastidious objections and demands of Mr. Ruskin—nay, would even commend itself to his approbation and support.

The ground occupied by the Yorkshire Varnish Company is quadrangular in form,one end facing the N. E. Railway line; the opposite end, where the offices are situated, fronting in to the Low St. Agnesgate, and lying snugly under the protection of the Cathedral. One of the sides is skirted by a road, and a tributary of the Skell—as shown in our second sketch—murmuring as it pleasantly runs its course, whilst the fourth side is contiguous to some open fields. So placed, the works are, as our readers

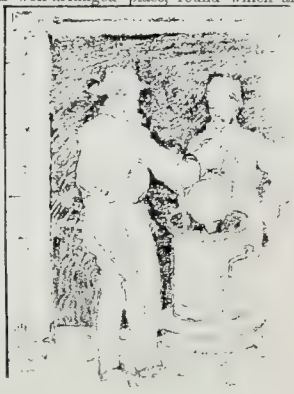


will see at a glance, admirably adapted for the manufacture of an article out of which it is essentially necessary to exclude all dirt and dust. This condition is recognised and enforced still further when we enter into the grounds themselves: the presence of the grass plots and trees, and the isolation of each department, all combine to minimise and mitigate the dust which would be fatal to the manufacture of good varnishes and kindred substances.

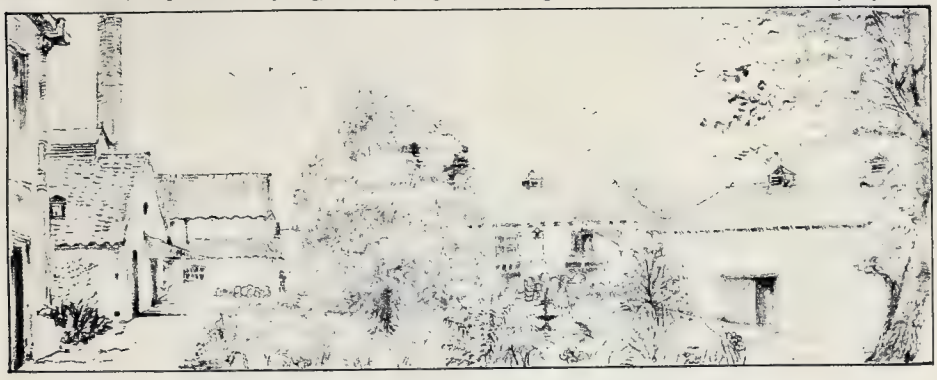
In the grounds themselves, which are of very considerable extent, there are fruit trees of several descriptions—apple, pear, plum, and peach; some of them, we noticed, were groaning with their load. Flowers of all kinds, familiar and uncommon, lent their gay vestures to make a beautiful scene still more attractive; whilst a large fernery in one part of the grounds was remarkable for the luxuriance of its growth, and the healthiness of the plants. We have dwelt on this, first because it is so unusual a thing to find such beauties as accessories to any manufacture; and, second, that their presence in the very midst of, and surrounded by the fumes of the varnishes and paints, points to the fact that however unpleasant these may be to individual tastes, yet they cannot be unwholesome, or the flowers and plants would not thrive as they now do.

Our business in calling being to make a careful inspection of the premises, we were taken over the works, commencing at the gum-room, which is immediately to our left on emerging from the covered entrance.

In this room are stored the various gums employed in the making of the different qualities and kinds of varnish. The selection of the gums is, perhaps, the principal point to be regarded—it is certainly one of the most important factors in the production of good varnish—and consequently the prices for the better qualities of gums are very high, and a great value of material can be stored away in a small compass. Next to the gum-room is the tinsmiths' shop, where are made all the bottles and tins used by the firm, a considerable item in each year's expenditure, as we were told some customers habitually neglect to send back empties, and thus a serious loss is inflicted on the firm. This experience is one of the incidencies of the trade as we have met with the same complaint elsewhere. From the tinsmiths' we now traverse part of the garden to what is known as the boiling house. This is the place where the gums are boiled in large pans, like a milkman's can in shape, only much larger; below the level of the floor of the boiling house are sunk several furnaces; on to these the cans are lifted, and the gum melted with the other ingredients; after it, has boiled sufficiently long, it is lifted off, carried to the door, and "thinned" by admixture with turpentine. The men wear large leather gauntlets whilst they are handling the vessels, to keep their hands clean and to protect them from the hot liquid which would scald severely were it to get on to them. After this we were shown the large shed with a square iron cistern of great dimensions, in which are boiled and made clean the dirty bottles as they are sent back; near to this is the shed for the empties, where they are stowed until "washing day." Then comes the coopers' shop, boiler house, and blacksmiths' shop, all arranged with an eye to the necessitie of the business. From the last-mentioned place we were introduced to the paint-grinding shop, a long well-lighted room, fitted up with the newest and most modern machinery for the grinding of paint; here all were quietly yet busily prosecuting their work. Crossing the yard we enter the oil stores, where in large tanks are stored the oils used in the making of the varnish and in the grinding of the paints. Leading from this room we come to the colour-making department, a commodious well-arranged place, round which are placed the vats wherein the different colours,chromes, greens, blues, lakes, and reds are made. The colour room is fittingly the vestibule to the colour stores, where are stowed away the colours that have been made in the other departments. Hitherto we have been on the ground floor. We now ascend the staircase and find ourselves in the warehouse, out of which we enter into the packing room, whence the goods are des-

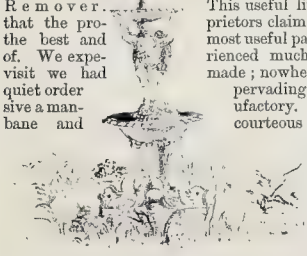


patched to all parts of the country and to distant shores. The old maxim, "A place for everything, and everything in its place," was here practically demonstrated, with the result that everything fitted into each other, to use a homely expression, like clock-work, to the great comfort of all concerned, both employer and employed; and seemed in perfect harmony with the external surroundings.



Traversing an overhead gangway which connects two portions of the works we come to the fine colour room, and the department where printers and lithographers' inks are ground; the machinery is all driven by steam but is of a finer quality than those employed for ordinary paints. This completes the works themselves, but a very important room remains to be inspected; this is the varnish store room—a large lofty warehouse, about eighty feet by thirty, separated from all the other portions of the works by the width of the garden. This warehouse has been specially built for the storage of varnish, and all means to exclude dust are taken; the extent of it may be gathered from the fact that we counted seventy-six tanks, or cisterns, each capable of holding four hundred gallons, or a storage capacity of between thirty and forty thousand gallons. This warehouse is heated by steam so that it can be maintained at one mean temperature throughout the year.

Before we could say we had completed, we were taken to a room upstairs adjoining the offices, where is made an article that has for some years past been recognised as of sterling value, and indeed a necessity, in every painter's shop. We mean "Hulme's Patent" Paint Remover. This useful little machine does all that the proprietors claim for it, and is by far the best and most useful paint stripper we know of. We experienced much pleasure from the visit we had made; nowhere have we seen such quiet order pervading so large and extensive a manufactory. Mr. Binns, the urbane and courteous principal, is one of Her Majesty's Commissioners of the Peace for the County, and resides at Ripley Hall, a fine modern mansion commanding a very extensive and beautiful view of the country, and situated about five miles distant from Ripon.



Our artist has jotted down a sketch of one of the Yorkshire Varnish Company's representatives—Mr. W. H. Casson. This hardly does Mr. Casson justice, but those familiar with him can supply any deficiencies. Mr. Casson, in *propriâ personâ*, has a "contented-with-himself" look that the sketch does not at all give. When Mr. Casson enters your shop you would imagine that the last thing in the world he means is to get an order. The weather, the Egyptian question, Cetewayo, the Australian cricketers—anything but varnish; and then when your defences are down, he opens his batteries, and his book, and the thing is done and Mr. Casson is satisfied and wishes you "good morning" with the aforesaid look on his face, only intensified. The Yorkshire Varnish Company make, amongst other specialities, a white enamel called "Albarine." We have spoken of this in high terms before, and we recently saw some work executed with it eight years ago, still in excellent condition. The Imperial Brunswick Black made by this firm is also a commodity well worth attention. The Yorkshire Varnish Company have received several medals and awards for the excellence of their varnishes, at different exhibitions, and obtained honourable mention, and a medal, at the Paris Exhibition of 1878, and their goods are well-known amongst the trade throughout the kingdom.



MR. HARRY HEMS, of Exeter, has removed to a larger studio. To commemorate his professional connection with the old premises, which he has occupied for the last sixteen years, he has affixed to the outside a memorial tablet bearing the following clever and quaint inscription:—

HARRY HEMS
SCULPTOR
—Aged 40—

Grieve not my friends, nor shed a tear,
I'm well and strong, and living near;
Daily all honest folk I greet,
At my domain in Longbrook Street.

Read, learn, digest, and hereby mark
That Place, by men, is called Fair Park.
There, with a staff of artists skill'd,
On Fortune's sturdy rock I build:
Each one upon his part intent,
To rear to Fame a Monument.

READER:—The wide, wide world go tell
My motto still is:—
I· X· L·

The tablet bears also a facsimile of a horseshoe, illustrative of Mr. Hems sign, "Ye Luckie Horse-shoe." We hope our Exeter friend may enjoy a happy and prosperous career in his new premises, and continue to build for many years on "Fortune's sturdy Rock."

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

(Continued from page 226.)

FIG. 100.—A Stag's Attire, sable. In this bearing part of the skull of the stag is generally represented as adhering to the horns.

Fig. 101. — Vert, a Balista, argent. The Balista and Catapulta were warlike engines, which were used to hurl huge stones against the walls of castles and other fortified places. These engines were of great service in sieges before the invention of gunpowder, but in comparison with the great ordnance which has just been used against the forts of Alexandria, may be considered as mere children's toys.

Fig. 102.—Argent, a Barnacle, azure. This is an instrument made of iron, and was used by farriers, who placed it on the upper lip of a horse to keep him quiet while being shod or bled, or undergoing any other operation, a very cruel plan we should suppose, and long discarded we should hope.

Fig. 103.—Purpure, a Bat, argent. The Bat, or Reremouse, is always displayed in coats of arms exactly as we see it when nailed upon the barn doors by the farmers or gamekeepers in the country, with its wings spread out to their utmost capacity, which in heraldry is termed displayed. In ancient times it was not an unusual sight to see the gates of the castles or keeps covered with these creatures nailed up in all sorts of forms, bats, hawks, and birds of prey generally.

Fig. 104.—Per pale, argent and or, a Baton, sinister, gules. The Baton is a staff or truncheon, and a division of the bend sinister, and while it is a sign or symbol of power, authority, and command, it is singular to say, in English heraldry used as a badge of illegitimacy. Why this is so we cannot say. Its universal use as a sign of authority is indisputable.

Fig. 105.—Azure, a Beacon, argent, fixed proper. The Beacon was, before the invention of telegraphs, universally used in time of war or invasion to give warning of the approach of the enemy. In the majority of cases, as in the fortified castles of the nobles, a cresset or iron grate was erected upon the highest tower, to give notice to the retainers of an enemy being in sight, and call them to the aid of their lord. In the feudal times this enemy might be a near neighbour, a border robber or freebooter, or foreigner landed from ships, as in those days the strong hand ruled, and it was considered a commendable feat to rob your neighbour of his castle, or in fact anything that was his. Of course he had his remedy. If he could get together a strong following of knights and men-at-arms he marched upon the lands of his enemy and recovered (perhaps) what he had lost, and retaliated by robbing his enemy of all he could lay his hands upon, and possibly if he could slaughtering the whole of his family into the bargain, happily that state of things has changed for the better. Public beacons were generally placed upon the highest hills so that they might be seen by all the country round, and also from other hills at a distance, and in this way tidings of weal or woe were quickly transmitted to great distances all over the country, as in the case of the Spanish Armada, when the news of its approach was thus telegraphed all over England and Scotland in a very few hours. These beacons were however not of the form of that in our illustration but consisted of heaps of combustible material, tar barrels, branches and trunks of trees, and in fact of every thing within reach that would burn or make a great blaze. Our illustration shows a cresset or iron dish mounted upon a wooden or iron frame. This form of beacon or warning light no doubt originated the idea of the lighthouse: Castles or strongholds by the sea or lake, would be fitted with some such contrivance; to warn and guide the lord of the castle or his retainers when returning in boats at night, and to light up and guard the vulnerable points most favourable for an enemy to assault. Hence we may reasonably conclude, that rocks and dangerous points of land were furnished with beacons, which in course of years have become the splendid examples of human science and skill we now fine upon every dangerous shoal or rocky headland. Thus our simple beacon has become a world-wide benefactor, conducing to the saving of thousands of valuable lives and millions of property.

Fig. 106.—Or, a Bear erect, proper, muzzled gules. This animal needs no description, his position in heraldry should always be mentioned in the blazonry of a coat of arms. It has always been considered a great feat to attack and conquer a bear, the grisly bear of the Rocky Mountains or the Polar bear being formidable antagonists, and it was no doubt to commemorate some feat of this kind that the bear was first used as an armorial bearing.

Fig. 107.—Gules, a Bear passant, argent, muzzled, or. Passant means walking or running, moving.

Fig. 108.—Argent, a Bear's Head, erased, sable, muzzled, or. The term erased is always used when the animal or bird represented is cut away in the form here shown in our illustration.

Fig. 109.—Sable, a Bear's Foot, or.

Fig. 110.—Argent, in chief two Hawk's Bells, in base a Church Bell, sable. Hawk's bells are a very common bearing. The sport of hawking was a very favourite pastime for both ladies and gentlemen in the olden times, and favourite or celebrated birds were often preserved after death and placed in their accustomed attitudes on the walls of the entrance halls or other parts of a nobleman's or gentleman's castle or house, and thus came to be adopted as an armorial bearing.

Fig. 111.—Azure, six Billets, three, two, and one, argent. Billett means a small piece of wood oblong or square.

(To be continued.)

DIVISIONS OF THE SHIELD.



FIG. 100.—A Stag's Attire, sable.



FIG. 101.—Vert, a Balista, argent.



FIG. 102.—Argent, a Barnacle, azure.



FIG. 103.—Purpure, a Bat, argent.

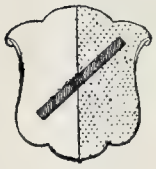


FIG. 104.—Per pale, argent and or, a Baton, sinister, gules.



FIG. 105.—Azure, a Beacon, argent, fixed proper.



FIG. 106.—Or, a Bear erect, proper, muzzled, gules.



FIG. 107.—Gules, a Bear passant, argent, muzzled, or.



FIG. 108.—Argent, a Bear's Head, erased, sable, muzzled, or.



FIG. 109.—Sable, a Bear's Foot, or.



FIG. 110.—Argent, in chief two Hawk's Bells, in base a Church Bell, sable.



FIG. 111.—Azure, six Billets, three, two, and one, argent.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

(ALL RIGHTS RESERVED.)

(Continued from page 238.)

CHAPTER XXII.—MARBLES AND MARBLING.

IN order that the student may obtain a better and clearer understanding of our instructions for the imitation of marbles, we will take for our illustration a staircase, which we will set out and work upon. Here, of course, we can only describe in words, the various processes used in imitating the different marbles we shall use, but we shall have this advantage, that we shall describe and set out our work as we ourselves have set out many a staircase and worked them in imitation of various marbles. This plan will also give us the opportunity of describing the methods we have used in inlaying various marbles, so as to form decorative designs for the ornamentation of vestibules, pilasters, etc. It must be understood that in setting out a staircase wall in blocks for the purpose of being marbled, we are not confined to any particular size of block, nor are we obliged to make every block of the same size,as is done with marbled paper-hangings. As will naturally be supposed, in getting blocks of real marble from the marble quarries, it is not possible to get them all of the same length or width. As a rule the blocks are irregular in form and vary very much in size and colour. And it must also be remembered that in covering a staircase with real marble, it is not used in solid blocks, but in veneers of about one inch thick more or less, according to the value of the marble and its scarcity or otherwise. Consequently, when these are sawn into slabs and placed upon a wall, there will be no uniformity either in width or length, only so far as to keep each row of slabs equal in width, so that the horizontal lines shall range truly. To do this even, there must be much piecing and patching of the marble to make complete blocks. We have on good staircases always disregarded uniformity of both length and width, and while keeping the horizontal lines true, have varied the blocks, and have found the work to look much better and more like the real marble by so doing. There is also another point of great importance which requires to be guarded against in doing the marble in blocks. Blocks of marble of any kind, even if got from the same quarries, will vary very much in colour. Some blocks will be light and soft in their markings, while others will be dark in colour and strongly marked, and if these be put together without judgment or taste, violent contrasts will be produced, and in large masses such as staircase walls, if one block be much darker than another, it will be sure to offend the eye by its standing out from the others in such strong contrast, so it is always best in working to select a medium strength of colour, and work to that throughout. We shall thus keep all at the same level, avoid offence to the eye, and secure that appearance of flatness so essential to the true imitation of marbles.

We have been in the habit when setting out a large staircase, of making the blocks about eight feet long by four wide, varying each row of blocks a few inches in width and of different lengths. The bottom block measures from the level of the floor including the skirting board. This is a much better plan than starting from the top of the skirting board with the first block, as we thus get an appearance of solidity as if it rested on the floor. From the line of the first block we measure four feet for the second block, but vary the remaining widths up to the cornice line according to circumstances. If the blocks come in of equal widths, there will be no necessity for altering them, but if the top block is very narrow, then the other blocks may be so arranged as to cause the difference to be less noticed. A block should never be carried round a corner or an angle as if it were a solid block of marble or stone. This is a mistake, as we are supposed to know that we are not imitating solid blocks but thin slabs. When the blocks are arranged so that the division line or end of the block does not finish in an angle or corner, and that for the sake of something like uniformity in their size, we finish the block at a certain distance from the corner, we must shew the joint at the corner by the finishing of the lines of the principal veins in the marbles. This is in fact the only proper way to show the division lines of all the blocks, and not by lines drawn on with colour, as in paper-hangings. After striking the horizontal lines at the proper width of each block, we then mark them with a black lead pencil, which line will remain distinct while the marbling is being done, and serve as a guide to work by and enable us to make the limit of each block distinctly marked, by the difference in the veins and colouring. What we mean is, that the dark veins and strongest colouring of one block shall butt up against the lightest part of the next block, as it does in the real marble. By this means we may make each block complete in itself, and reduce the division line to the appearance of a close joint in the marble. Briefly, we first mark the width of the blocks, then strike the horizontal lines with the chalk line. We then mark the length of each block, and use a plumb line to strike the perpendicular lines, thus ensuring them being upright. Great care must be taken in getting the horizontal lines quite true when setting out on large walls on the rake. This caution is necessary, as it is such an easy matter to get wrong on mounting the stairs.

The blocks on these walls will of course have to be of various sizes just as they come in against the skirting on the rise of the stairs, and all the upper lines of the blocks on landings and stairs must be regulated by those first struck on the straight walls of the lower parts.

Having set out and marked the blocks, we will proceed to the actual work of marbling, and will take Sienna marbles in the first instance, as our staircase marble. Sienna is a yellow marble, and is

obtained from quarries in the neighbourhood of Sienna, a town of Central Italy, and the capital of the province of that name, formerly part of the Grand Duchy of Tuscany, situate on the shores of the Mediterranean. A similar marble, but not so rich in colour or vein, is found at Verona, in Portugal, Germany, and other places. This marble is of a quiet, warm, yellow colour, and of a straw colour in its lighter parts. Some parts are of a rosy red tint mixed with yellow and vermilion. It is broken up with black, dark reddish-grey, and yellow veins, interspersed with transparent white veins like spar.

This has been a favourite marble for ages, the Egyptians, the Greeks, and if Romans made extensive use of it, both in large masses, and for inlaying, for which purpose it is admirably suited, and even in these days, it is held in high esteem, and commands high prices. It varies very much in colour, which fact is of course one of its greatest charms, but the prevailing and characteristic colour is the yellow spoken of above. The celebrated pigment called "sienna" is a native earth which is procured in large quantities from the same province of Italy. It is one of the most useful colours we have. Sienna is a useful marble for all the purposes for which marbles are used, but on account of its light, cheerful colouring, it is admirably suited, and in fact has been extensively used for veneering staircase walls. It has in its composition a rich variety of tones of yellows, reds, greys, and purples, softly blended, and its veins or markings are pleasing in form.

As we have before stated, the ground colour should be lightly stippled in the last coat, which should be dead white. This and all crayon marbles are worked in wet colour, which for Sienna marble should be made with pure linseed oil, white lead, and Oxford ochre, with a little vermilion added. This colour should be of a light buff hue, matching the medium or middle shade of the real marble, which should be consulted when mixing it. A small quantity of sugar of lead should be added, as the ochre is a bad drier, but as the colour is not required to dry or set quick, care must be taken not to put too much in or it will not allow sufficient time for the proper working or blending of the colours. This colour should be rubbed upon the work very sparingly, for if too much is put on all the colours and markings will smear, and not keep to their true form when softened or blended with the badger. We shall require to mix a little vermilion in a pot or cup, with turpentine, adding a little of the buff rubbing in colour to it. We shall also require a darker shade of the buff of the same tone as the rubbing in colour made with ochre and vermilion, also a few neutral tints, made from ivory black, Indian red and white, or ultramarine blue instead of ivory black, mixed with turpentine alone. Also a thin dark yellow made from Oxford ochre alone, and thinned with turpentine. The crayons required for Sienna, are one black, and one made from ivory black and Indian red, a bluish grey one, and one of a reddish tone, made as before described. The above are all that will be required for the first rubbing in of the marble.

In mixing and using the colours, great care should be taken to have and to keep everything we use perfectly clean and free from dust and grit. By so doing we shall insure clean smooth work.

We will now commence to work the marble:—

Rubbing in.—In rubbing in the wet colour to marble upon, care must be taken to rub the colour on very bare—a well-worn pound brush is the best for the purpose. By bare we mean to rub the colour on in only a sufficient quantity to enable us to soften and blend the veins and colour we put upon it without smearing. This is a very important point to the success of the work. In working, one or two blocks are sufficient to work upon at once. We will take two blocks—the ground colour being rubbed in, we take a feather and dip it into the darkest neutral tint, and with this form a leading vein, diagonally across the block, giving it an irregular or broken appearance. This colour being principally turpentine will open up irregular spaces, showing the white ground. These may afterwards be worked up into semi-transparent white veins or patches as seen in the real marble. With the same colour and feather we must strike off smaller veins from the leading one. A lighter neutral tint may now be used to break up the large masses of plain spaces. If this is done properly, it will form irregular patches of all sizes on and around the leading vein. It is best to avoid anything like formality in the form of these patches, as it is not so in nature.

It should always be remembered that there is very rarely, if ever, a circle, a square, or a straight line in any marble.

We now take the black or dark coloured crayon, and mark out the principal veins with it in that irregular broken form we see in the real marble, making the lines heavy in some places and light in others, according as the dark or light part of the block may require. This may be done by merely passing the crayon lightly or heavily against the work, or by using the narrow or broad part of the crayon. We now take the purple or red crayon and break up the patches on the leading or principal vein with it. We then take a flat tin tool, dip it into the thin Oxford ochre and vermilion, and fill in a few of the patches or broken pieces formed by the veins, not filling them entirely but leaving a light edge of varying width. We now use the feather and thin ochre tint before described, and break up the whole of the spaces with light veins running all ways across the patches. We then fill in a few of the patches next or about the darkest veins with the pink or vermillion tint. The whole will now be ready for the softening and blending.

The softening is a part of the process which requires the greatest care in the doing. If carelessly or improperly done, the previous labour will be lost as the work will be spoiled. The hog-hair softener must be used, but only the extreme ends of it, for if any portion of the side is used it will drag the colours one into the other and destroy their form and sharpness. The brush should be held in the hand so that the bristles will stand straight from the surface of the wall, and be kept to that position when using it. It may be a little difficult at first, but it is the only way in which the work can be done effectively.

The touch of the bristles on the work should be

light, and judgment must be used and the process of blending carefully watched to see that the veins keep their form and sharpness, while still being blended and softened the one into the other. In doing this we may at the same time add a little colour or a dark or light vein here and there, where they may be required.

(To be continued.)

JOURNAL OF DECORATIVE ART PRIZE SCHEME, 1883.

In our next issue we hope to lay before our readers the completed details of our Second Annual Prize Scheme, which we feel assured will commend itself to their approval.

ART NOTES.

A very interesting display is at present being shown at the premises of the Art Furnishers' Alliance, Old Bond Street. Dr. Dresser has always had the courage of his opinions, and he has boldly adopted the idea which we first saw expressed by Mr. Lewis F. Day, of using common brown paper, sugar paper, parcel paper, and carpet paper, and covering the wall with it as a base for stencilled decorations—the effect is most pleasing, and most artistic, too. The shades of colour are of such a soft, subdued character, that they harmonize admirably with almost anything.

The Decorative Art Galleries, opened fifteen months ago with a somewhat ostentatious flourish of trumpets as to its intentions for exhibiting the Decorative Art of the country, have lapsed into a kind of permanent Show-rooms for exhibiting the productions of various manufacturers, and selling the same. This is a fall from the high ground originally taken up.

We recently had the pleasure of inspecting the handsome and commodious premises occupied by Messrs. G. D. Peters and Co., Moorfields, E.C. Messrs. Peters are the sole wholesale agents in the City for the sale of Lincrusta Walton, and some specimens we saw on exhibition there, were admirably and artistically treated. Messrs. Peters and Co., being large naval and railway contractors, are introducing Lincrusta most extensively into the saloons of our ships and the best carriages on our main lines. Four large railway saloons, decorated and fitted up by them for the London and North Western Railway Company, were recently on exhibition at Euston Square, and very beautiful they looked. Messrs. Peters are fitting up eight more carriages in a similar style for the same company.

St. James's Hall, Manchester, is to be utilized for a Fine Art and Industrial Exhibition in October next. Mr. Alfred Darbishire, F.R.I.B.A., has the management of the Fine Art department. There is promise of a successful display.

TRADE INTELLIGENCE.

On the 23rd of last month, Mr. Justice North had before him an application by the proprietors of *The Plumber and Decorator and Journal of Gas and Sanitary Engineering*, to restrain the publication of a new journal entitled *The Decorator, Plumber, and Gas Fitters' Journal*, on the ground that it was an alleged imitation of the plaintiff's title.—Mr. Justice North said that if he followed his own inclination, he should grant an injunction; but, under the circumstances, he would merely order the defendants to keep an account until the trial of the action. When will people learn the lesson that there's a much greater chance of success by striking out a new and independent line than in seeking to woo it by questionable imitations?

The Pavilion and Pier at Southsea Clarence Pier, Portsmouth, which were opened by the Prince of Wales a few days ago, have been painted and decorated throughout with "Albissima Paint," by Messrs. Hill and Co., of Gosport, under the supervision of Messrs. Davis and Emanuel, architects.

The absence of noxious smells during the painting was most striking, and was commented upon by the chairman and directors of the Pier Company in flattering terms. We are informed as a fact that a trifle more than half the quantity of "Albissima" originally calculated to cover the area to be painted has been used, thus demonstrating again the great economy in the use of "Albissima."

On the 16th of last month a journeyman painter, working at St. Luke's Church, Cheetham Hill, Manchester, met his death by falling from a scaffold. Deceased, who was an elderly man, had gone up a ladder to reach down a plank to his fellow workman; he must have turned giddy, for he instantly fell head foremost a distance of about twenty feet, on to a stone flagged floor. Death was almost instantaneous. The deceased was a most respectable man, and his death is lamented by all who knew him.

The War in Egypt.—The cabins of the P. and O. steamers, now on duty as Hospital Ships in Egyptian waters, have been painted throughout with Griffiths' Enamel Paint, manufactured by Messrs. Griffiths, Berdoe, & Co., 51, South John Street, Liverpool, and 34, Leadenhall Street, London.

The Torbay and Dart Paint Company have forwarded to us their new specimen sheet of the paints they manufacture, which includes no less than forty-two different kinds for outdoor and ordinary work and twenty-four different kinds for interior decoration, the latter characterised by being ground extremely fine. We commend the list to the trade as a most useful one. Of the paints we can speak from personal experience in the highest terms. It would be impossible, or very difficult, to get the purity of tint which is obtained in these paints by mixing in the ordinary way.

Subscribers to the *Journal of Decorative Art* are informed that any record of work done by themselves will be noted in the columns of the journal on receipt of full particulars being sent to the office, 1, St. James's-square, Manchester, not later than the 20th of each month.

Messrs. John Line and Sons, Reading, have just sent to the Cape a large order of their well-known goods.

ANSWERS TO CORRESPONDENTS.

R. Arsenal, Blackheath.—In embossing glass the Brunswick Black should be of the best, and free from grit or dirt of any kind, and no foreign matter should be allowed to mix with it; but it should be used pure. When painting the design on the glass, it (the glass) should be laid flat on a bench or table, we are thus enabled to apply a better and more even body of the black than if the glass were upright; the black should remain a full day before the acid is applied. With regard to the strength of the acid, it varies very much from different makers but a pretty safe average is to put a quart of water to every pint of acid and if we add about two tablespoonfuls of nitric acid to it this helps to regulate the action of the fluoric acid and causes it to bite more evenly. The length of time the acid must remain on the glass will of course depend upon its strength; it is always best to try and prove it on a waste piece of glass before putting it upon the work. Sheet or crown glass must not be used on account of the inequality of the surface which causes the acid to lay deeper on one part than another, and so will bite irregularly. We shall shortly give full instructions on this subject.

Vol. 2. No. 22. October, 1882.





W. Sutherland, Invt.

Photo Lithographed by W. Kleinsorte, Manchester

A. A. Sutherland, Delt.

ORIGINAL DESIGN FOR BORDERS.

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"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

THE "JOURNAL OF DECORATIVE ART"

SECOND ANNUAL

Prize Scheme, Exhibition and Competition,

APRIL, 1883.

IT is with feelings of great pleasure that we announce our Second Annual Prize Scheme Competition and Exhibition. We have arranged for it to be held like the first one—in connection with the Building Exhibition at the Agricultural Hall, Islington, in the month of April, 1883, and for this we have secured the wall space on the South Gallery, a position admirably adapted for our purpose. Thanks to the liberality of a number of our advertisers, we are enabled to lay before the House Painters and Decorators, Grainers, and Marblers of Great Britain a scheme, and a schedule of prizes that ought to command their earnest and generous support. It will be seen by reference to the scheme itself that not only do we cover more ground in the subjects embraced than last year, but we have an aggregate of prizes amounting to over one hundred and twenty guineas. We are certain that such a sum distributed as it is proposed in the details of our prize scheme, ought to commend itself, and we feel sure it will, to the support of all who are concerned in the furtherance of the trade interests.

We make bold to say that so important a scheme has not been submitted to the trade before, and we claim their energetic co-operation with us to make it successful. Our first efforts in March last were of necessity experimental in their character, and their demerits arose from that fact. Profiting by the experience we then gained, we have endeavoured in the drafting of the conditions attaching to this second competition to steer clear of the mistakes which then arose. To the gentlemen who have so generously met our proposals, and placed at our disposition the various sums attached to their respective prizes, we speaking on behalf of the important trade this journal represents, and of ourselves, tender our best and heartiest thanks. Such competions as these cannot fail to have a beneficial influence on all who take part in them whether they are successful in winning prizes or not. The putting forth of earnest serious effort is of itself good discipline and the best of education. We therefore invite the Master Painters and Decorators, to unite with us in making our Exhibition (and theirs) in every way a worthy one. It will be seen by reference to the conditions that with the exception of Section VI. all articles are returned to their owners—that is, we don't claim any proprietorship over them beyond reserving to ourselves the right to publish them at our discretion, in the pages of the *Journal of Decorative Art.* By this means we hope to induce more to become competitors. We know that this condition of retention of the prize panels deterred many from exhibiting in our first competition who otherwise would have contributed—though we have since returned all those panels we retained under the conditions of the last competition. The wall space at our command is very extensive, and we hope therefore that the response will be adequate to it. The Prizes are as follows:—

SECTION I.

CLASS A.

The "CHARLTON PRIZE," value £30, contributed by Messrs. J. B. Orr & Co., 46, Cannon Street, E.C.

FIRST PRIZE, £12 10s. 0d.
SECOND PRIZE, £5 10s. 0d.

For the best designed and executed decoration for Frieze, Filling, or Wall Space (this can be left a plain colour at the option of the competitor), Dado, and Door Panels for Dining Room. To be executed in "Charlton White," on canvas stretched on frames. Style optional. Size of Frieze, 6ft. × 1ft. 6in.; Filling, 6ft. × 4ft.; Dado, 6ft. × 4ft.; Door Panels (wood), 42in. × 14in.

CLASS B.

FIRST PRIZE, £8 0s. 0d.
SECOND PRIZE, £4 0s. 0d.

For the best designed and executed Decoration for Staircase, Dado Frieze, Dado Border, and Wall Space, the wall space can be plain colour if necessary, but all executed in Duresco.

To maintain uniformity we would suggest a light screen frame about 9 feet by 4 feet 6 inches, canvassed, covered with lining paper, and then decorated on that.

SECTION II.

CLASS C.

The "WILKINSON, HEYWOOD, & CLARK PRIZE," contributed by Messrs. Wilkinson, Heywood, and Clark, value £30.

FIRST PRIZE, £20 0s. 0d.
SECOND PRIZE, £10 0s. 0d.

For the best designed and executed Decoration for Drawing Room Door and Architrave. Size of door optional. Style, Pompeian or Renaissance.

We have, with the consent of Messrs. Wilkinson, Heywood, and Clark, divided this into two sums of £20 and £10, so as to be commensurate with the cost of providing and decorating a door.

SECTION III.

CLASS D.

The "YORKSHIRE PRIZE," value £15, contributed by the Yorkshire Varnish Company, Ripon.

FIRST PRIZE, £10 0s. 0d.
SECOND PRIZE, £5 0s. 0d.

For the best executed set of six Marble Panels (marbles optional). No columns admitted.

SECTION IV.

CLASS E.

The "CROWDEN & GARROD PRIZE," value £12 10s., contributed by Messrs. Crowden and Garrod.

FIRST PRIZE, £7 10s. 0d.
SECOND PRIZE, £5 0s. 0d.

For the best executed Set of Six Grained Panels, Oak, Mahogany, Walnut, Maple, Pollard-Oak, Pitch-Pine, or Satinwood.

SECTION V.

CLASS E.

The "SUNBURY PRIZE," value £15, contributed by Messrs. F. Walton & Co., Limited, Sunbury-on-Thames.

FIRST PRIZE, £10 0s. 0d.
SECOND PRIZE, £5 0s. 0d.

For the best decorated specimen of "Lincrusta Walton" Dado, Filling, and Frieze (patterns optional), to be treated of a Dining Room. All mounted on one Screen. Size of Screen, 10ft. × 3ft. over all.

SECTION VI.

CLASS F.

The "BRISTOL PRIZE," value £15, contributed by Mr. T. C. Stock, Victoria Street, Bristol.

FIRST PRIZE, £10 0s. 0d.
SECOND PRIZE, £5 0s. 0d.

For the best designed Decoration for Wall Papers for Staircase, showing Dado (on the straight and rake), Filling, and Frieze. The two prize designs to become the property of Mr. T. C. Stock. These designs must be drawn for the pattern to repeat itself every 21in. in width.

SECTION VII.

CLASS G.

The "SUTHERLAND PRIZE," value £10 10s. 0d.

FIRST PRIZE, £7 0s. 0d.
SECOND PRIZE, £3 10s. 0d.

For the best design in black and white, for the Decoration of a side of a Dining Room, Door, Architrave, Wall Space, Dado Border, and Frieze. Size of drawing, 32×22. No colour to be introduced, and the drawings to be on smooth white paper.

TOTAL VALUE OF PRIZES, £128 0s. 0d.

CERTIFICATES.

Certificates will be awarded to those works deemed of sufficient merit in each section.

A list of the names of the successful competitors will appear in the May number of this Journal with a full description of their work.

CONDITIONS OF COMPETITION.

I.—The right of withholding a Prize shall rest with the adjudicator or adjudicators should the works sent in be deemed of insufficient merit. It is needless for us to say that there will be every desire to bestow the Prizes.

II.—All names of intending competitors, and applications for space, to be sent in to the Head Office of the JOURNAL OF DECORATIVE ART, 1, St. James's Square, Manchester, by the 1st of February, 1883. Forms for application for space will be forwarded on receipt of a stamped addressed envelope.

III.—Competitors entering under more than one section or class, must fill up separate forms for each.

IV.—A charge of 2s. 6d. will be made for each class of competition entered for, to meet the expenses connected with the packing, hanging, &c., such sum to be sent to the office with the applications for the "space form."

V.—Cheques for the amount of Prizes will be remitted to the successful competitors, immediately on the decision of the adjudicator.

VI.—No name or names must be attached to any of the competing designs, but a motto or monogram. The name and address of the competitor to be enclosed in a sealed envelope, bearing the corresponding motto or mark on the outside, and securely attached to the design.

VII.—All designs to be executed in colours, except Section VII.

VIII.—The proprietors of the JOURNAL OF DECORATIVE ART will have the right of publishing any of the Prizes and certificated designs.

IX.—All articles for exhibition and competition to be sent into the Agricultural Hall, Islington, London, N., by March 26th, 1883. Carriage Paid. The proprietors of the JOURNAL OF DECORATIVE ART will supply printed labels to all competitors, so as to simplify delivery.

X.—All articles sent in to be removed within two days from the close of the exhibition. Country exhibitors must forward directed cards for returning their designs. All panels to be fitted with two rings for hanging purposes.

XI.—The specimens of graining and marbling must be executed on wood and well varnished.

XII.—In the Graining and Marbling Classes no *Machine* work will be allowed.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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CHAPTER XXIII.—DECORATIVE PROCESSES: GILDING ON GLASS.

IT must be clearly understood that no success can result either in making the size for glass gilding, nor in the working, except the greatest care is taken that everything used in the process is perfectly clean and free from the slightest particle of dirt or trace of impurity. A camel-hair tool either in the quill or in tin may be used for laying on the size, care being employed that the same is clean and free from dirt. The gold leaf used for gilding on glass is the ordinary gold leaf of commerce, and should always be procured, put up in white books. Gold leaf as a rule is sold in books, about 3½ inches square, containing 24 leaves of gold, which are generally 3¼ inches square. The paper of which these books are made is rubbed over with red ochre, rouge, or Armenian bole, in order to prevent the

gold sticking to it, which it otherwise would do, and be thus wasted. Now, a portion of this powder naturally adheres to the gold leaf when taken from the book, and in ordinary surface gilding is brushed off while manipulating it, and the surface of the gold thus freed from the dust is left pure, but if this gold is used for gilding on glass, the powder on the leaf gets between the gold and the glass and thus its brilliancy is impaired and it will appear dull and streaky. This is a fruitful source of failure and disappointment. To obviate this it is always best to use the leaf put up in white books without powder, which may be procured from any gold beater. Great care should be taken to keep these books in a warm dry place, or else the gold is liable to stick to the paper and thus be wasted, in fact this rule holds good with all kinds of gold or silver leaf, and should there be any suspicion of dampness having affected the gold books, they should be put into a warm oven or other place to drive out the damp.

The glass to be gilt will require to be perfectly clean. This may be best ascertained by breathing upon it, and if the moisture from the breath flies clean off the glass without leaving any mark behind, we may conclude that it is clean. The design to be gilt must be put upon the opposite side of the glass to that we are about to gild, either by pouncing or by applying the paper with the letters to the glass these act as a guide to lay on the gold.

The glass must now be placed upright, with a slight inclination backwards, the bottom edge should rest upon as small a surface as possible. Two small wooden pins fastened on a flat board, or an ordinary easel will do. If the bottom edge of the glass rests its whole length upon a table or shop bench, the size is apt to rise and run up the glass again carrying dust or other impurities with it from the bench, on the other plan if it rests upon two pegs the size runs away clear. The gold leaf is laid upon the glass in the ordinary manner, with a gilder's tip and cushion, which we do not stay to describe here as we shall speak of them more particularly in a future article on gilding processes generally. For glass the process of gilding is as follows:—

Place a number of leaves of gold on the cushion, having the knife, tip, and cushion ready for work. We now flow the size on to the glass, using it freely and not confining it to the exact part to be gilt. We now lay on the gold leaf in as large pieces as we can, using whole leaves when practicable, but, as it requires much practice to do this with success, half leaves are perhaps more convenient; we follow on until the whole of the space is covered. If the size gets dry or has run off before it can be all covered, it only requires to be again sized, which in almost all cases is necessary more or less. If we are gilding a line of letters or a breadth of border the glass should be placed so that these lines shall be perpendicular, because we can thus gild one line without the size flowing over or drying on another line, which is in all cases an advantage gained. A point of great importance, is to observe, when the size is put upon the glass whether it flows evenly over the glass or whether it runs into a number of rings, as though spots of grease were on the glass. When this happens, we may be sure that either the glass is not clean or the size is not pure, and if either is the case, it should be remedied at once otherwise no good work can result. When the parts to be gilt are once covered, the glass must be put away until it is dry. When it is thoroughly dry we then rub or polish it with fine cotton wool, but this must be done gently with a light pressure until it is all pressed flat to the glass, which hardens it and causes it to allow of the size being put upon it without the gold being moved or washed off. The cotton wool for this purpose should be of the very best manufacture, without stiffening, dust or other impurities. The most suitable may be purchased at the chemists shops, but in buying it we only choose that which is soft and flossy to the feel, there is some that feels hard, this will scratch the gold instead of polishing it; this effect will also be produced if the wool has dust in it, consequently the greatest care should be exercised in keeping it pure and clean. As it is scarcely possible to make a solid job with one coat of gold, the size must again be flowed upon that previously put on, and another coating of gold leaf applied as before. Much of this work is done with single gilding and patching or faulting where necessary, but it has not the solidity or uniformity of surface of the double gilt work. When the second coat is dry it must be again polished with the cotton wool. This will cause the gold to have a bright burnish. We now take a brush and a vessel with hot water and flow it all over the glass the plain parts as well as the gilt parts. This must be done repeatedly, letting it dry between each application, polishing also between each. By this action we remove all or the greater part of the size from between the gold and the glass, and any foreign substance as well. After this is done and again polished we give it another coat with the size; this only remains on the back of the gold and serves to prevent the paint or varnish from penetrating the gold and so injuring the burnish. The gold is now ready for working upon. We must here give a caution as to the use of the hot water, as there is much danger of breaking the glass especially in cold or frosty weather, and therefore the greatest care is required in its application. The operation should always be done in a warm room if possible, and in winter time it is the safest plan to flood the glass with lukewarm water first, and gradually increase the heat so that the expansion of the glass may be slowly produced, and thus the danger of breaking be avoided. This is also the reason why it is best to flow the hot water over the whole surface of the glass for if it is put suddenly upon one part and not all over, the unequal expansion is pretty sure to result in a breakage.

After many years experience we can confidently recommend the above described process, as being the simplest and the best means of obtaining bright burnish gilding on glass.

The material and varnishes used for writing upon the gold are various. Any quick-drying varnish will answer the purpose. In practice we have found that Black Japan is the best. We have used Brunswick black, cabinet varnish, and others, and we have found that Brunswick black answers very

*

well for all work which has to remain black, that is black and gold, but when coloured grounds are used it is inadmissible, simply because although it dries hard and quick, yet it is always soluble in turpentine and when a light-coloured ground is put upon it it smears and discolours it. Cabinet varnish is a capital medium for the purpose but none of them are equal to the Black Japan, but even this is of so brittle a nature when thoroughly dry and hard that it is liable to chip in scraping (to be described) that it should be worked quickly and not be allowed to get too hard before it is finished.

The design or line of letters are now pounced or traced upon the gold, using either pipeclay in powder, charcoal, ultramarine blue, or Indian red to pounce with. The design must of course be placed face downwards, and the letters will be backwards way, so that they will read aright through the glass. In many cases it is useful, especially in straight lines of letters, to place a straightedge upon the top and bottom lines and take off a line of gold about one-eighth of an inch broad. This may be done with the end of a pencil stick or a square ended piece of wood. We thus ensure the tops and bottoms of the letters being perfectly straight and equal, and in doing large letters we may thus cut both the horizontal and perpendicular lines and insure exactness by the use of the T square. In writing small letters, the writing may be done leaving the top and bottom lines full, and then when the Black Japan is dry we place the straightedge as before, and with a sharp-edged joiner's chisel, cut away all the superfluous colour and leave a sharp clean cut edge, any inequalities on the edges of the letters may be rectified in the same way. A metal straightedge is the best for this purpose because the chisel or knife will not catch in it as it does in wood. The chisel is most useful about a quarter of an inch wide and is laid on the gold and pushed along cutting the colour and gold perfectly sharp and clear. Long straight lines may thus be made equal in width and perfectly straight.

(To be continued.)

Decoration of Glass and Porcelain.—Three processes connected with the ornamentation of glass, porcelain, and earthenware, were lately brought before the Société de Encouragement, Paris. M. Cacault, of Colombes, prints, on the fine and hard earthenware of Creil, photographic impressions, which are fixed at a single burning. M. Lacroix, Paris, has produced pencils like those of plumbago, but consisting of various vitrifiable colours. A design executed with them, on glass, having the surface slightly dulled, stands the fire, and becomes fixed, like a painting on glass. A similar process, tried on porcelain a few years ago, is said not to have been successful. M. Lutz-Knechtle, a Swiss, decorates glass, cold, by his composition, made of a solution of silicate of soda or potassium, with the addition of zinc-white or ultramarine. The colours are applied by means of a stamp, or roller, dry quickly, and stand washing.

In view of the actual facts of the case, it was somewhat entertaining to read the accounts of the discussions on overtime at the recent Trades Congress at Manchester. Judging by the newspaper reports outsiders would imagine that employers were leagued together to compel men to work after certain hours, whereas the truth of the position is, that we have known men leave shops time after time in the summer months, because they were not permitted to work extra hours. We won't attempt to reconcile this with the somewhat high falutin heard at Manchester.

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

(Continued from page 248.)

Chapter XXI.



IG. 112.—Or, three Bird bolts, sable. These were a kind of arrow, with a blunt end or point, used to capture such birds or animals as it was not desired to kill.

Fig. 113.—Purpure, a Boar passant, argent. In heraldry the term passant means movement, and is applied to a wild boar.

Fig. 114.—Argent, a Boar's Head, couped at the neck, proper.

Fig. 115.—Sable, a Boar's Head reared, argent. The tusks may be of a different colour or tincture, but are generally either gold or silver.

Fig. 116.—Azure, a Boar's Head erect, or, in a cup, argent. The wild boar is not only a very ancient bearing, but has been a very favourite one. In ancient times the forests of Europe abounded with the wild boar, which afforded to the nobles and gentry a sport of which they were exceedingly fond. The hunting of the wild boar had in it all the elements of that manly sport, which is even in our day strong enough to draw numbers of our sportsmen to India, North and South America, etc., in search of the excitement and danger necessarily involved. But in the chase of the wild boar there was not only pleasure and excitement, but an amount of danger which gave a keener zest to the sport, for the wild boar when brought to bay was no doubt a very ugly customer to deal with, his fierce aspect and sharp tusks, added to his strength of limb, made him very dangerous to encounter at close quarters, and in those days, to close quarters the huntsman must come if he would conquer his foe. Arrows were not of much use against his thick hide, and there were no conical bullets to reach him at a distance, so the sport required all the qualities in the sportsman which go to make a brave and successful hunter, and no doubt in the pursuit of this animal individual feats of daring and bravery were from time to time performed, and the successful hunter would naturally wish to perpetuate his prowess by inscribing some record of it upon his shield, and thus it is we have the wild boar and his head displayed in all sorts of forms in heraldry. Our illustration shews a boar's head in a cup or charger. The boar's head was a celebrated dish at all great feasts, and at Christmas time. The boar's head, soused, was carried into the great hall or dining-room with much state, being generally preceded by the master of the revels, welcomed by choristers and minstrels singing and playing compositions in its honour. Dugdale relates that, at the Inner Temple, for the first course of the Christmas dinner, was "served a fair and large boar's head, upon a



W. Sutherland, Invt.

ORIGINAL DESIGN FOR SIDE OF ROOM

Specially designed for



A. A. Sutherland, Delt.

TRATIVE OF ARTICLE ON PANELLING.

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DIVISIONS OF THE SHIELD.



FIG. 112.—Or, three Bird Bolts, sable.



FIG. 113.—Purpure, a Boar passant, argent.



FIG. 114.—Argent, a Boar's Head couped at the neck, proper.



FIG. 115.—Sable, a Boar's Head reared, argent.



FIG. 116.—Azure, a Boar's Head erect, or, in a cup, argent.



FIG. 117.—Sable, two thigh bones salterwise in chief, and in base a small broken rib, argent.



FIG. 118.—Argent, two Bows, azure.



FIG. 119.—Vert, a Crossbow, argent.



FIG. 120.—Argent, in chief two Buckles (of different form), azure, in base a Buglehorn, sable, garnished or, stringed, gules.



FIG. 121.—Sable, a Bull's Head, couped, argent.



FIG. 122.—Or, a Bull's Head, caboshed, argent.



FIG. 123.—Purpure, in chief two Caltraps, argent, in base a Caduceus, proper



FIG. 124.—Or, a Carbuncle, sable.

silver platten, with minstrelsye." At St. John's, Oxford, in 1607, before the bearer of the boar's head—who was selected for his height and lustiness, and wore a green silk scarf, with an empty sword-scabbard dangling at his side—went a runner, dressed in a horseman's coat, having a boar's spear in his hand; a huntsman in green, carrying the naked and bloody sword belonging to the head bearer's scabbard; and two pages, in tafatye sarcenet, each with a mess of mustard, singing a boar's head song, of which the following was the first verse:—

"The boare is dead,
Loe! heare is his head,
What man could have done more
Than his head off to strike,
Meleager like,
And bring it, as I do, before?"

So important was the office of bearer of the boar's head considered to be, that in 1170 Holinshed has chronicled the circumstance of England's king, Henry II., bringing up to the table of his son, the young prince. a boar's head with trumpeters going before. From this species of service and custom many of our heraldic bearings have originated. In Kitson's collection of ancient carols and ballads there is one we cannot refrain from giving here, as illustrating what we have before said:—

"Nowell, nowell, nowell, nowell,
Tydings gode y thynke to telle,
The bory's hede that we bryng here,
Be tokeneth a prince with owte fere,
Ys born this day to bye vs dere,
Nowell.

"A bore ys a soverayn beste
And acceptable in evry feste
So mote thys lorde be to most and leste
Nowell.

"Thys bory's hede we bryng with song
In worchyp of hym that thus sprang
Of a virgyne to redresse all wrong
Nowell."

Fig. 117.—Sable, two thigh bones salterwise in chief, and in base a small broken rib, argent. Bones are borne as a charge by the ancient families of Boynes, Da Costa and others.

Fig. 118.—Argent, two bows, azure. We here give two forms of bows the one on the dexter side of the shield being the most ancient.

Fig. 119.—Vert, a crossbow, argent. Coats of arms which bear this weapon may fairly be considered of very high antiquity, the crossbow having been used by Greeks and Romans and it is supposed to have been invented by the Cretans.

Fig. 120.—Argent, in chief two buckles (of different form), azure, in base a buglehorn, sable, garnished or, stringed, gules.

Fig. 121.—Sable, a bull's head, couped, argent.

Fig. 122.—Or, a bull's head, caboshed, proper.

Fig. 123.—Purpure, in chief two caltraps, argent, in base a caduceus, proper. The caltrap is a piece of iron with four points, one of which when it is thrown on the ground stands always upright. They were formerly used in war to gall and lame the horses of knights when making a charge against their opponents. The caduceus is represented as the wand carried by the heathen god Mercury, and is considered as an emblem of commerce and industry. The staff symbolises steadiness, the two serpents sagacity and wisdom and the wings signify celerity and dispatch of business.

Fig. 124.—Or, a carbuncle, sable. This figure represents a compound jewel which ladies used to wear on their breast. The gem carbuncle which shone generally in the centre, gave a name to the whole, which in heraldry, is composed of eight sceptres, *pomelli* and *floretti*. The romances of chivalry tell us that a dragon was entrusted with the keeping of this gem, and that many a knight errant who attempted to steal it by desire of their ladies fell victims to their rashness.

(To be continued.)

OUR ILLUSTRATIONS.



OUR illustrations for the present month of October consist of two double-page plates of original designs—the one showing the side of a room with cornice and door, the other plate containing six useful borders for dados and other purposes.

We have specially designed the side of room to illustrate what we have said in the July number on the setting out and panelling of rooms. It will be seen that our design consists of a panelled dado, wall space, and frieze, and a panelled door. We also show the cornice above the frieze. This example will serve to show what may be done in the way of panelling on each division of a wall. For instance, we might dispense with the panels on both dado and frieze and carry the wall panels from top to bottom, or we may simply use the dado and frieze and leave the wall space plain, or we may use the frieze alone. In the article referred to we stated that as a matter of personal preference we preferred to make each wall into one panel, but that three panels on each is not objectionable, if properly proportioned, and we here show how the three panels should be distributed or arranged so as to give symmetry and proportion. The small panels at each side of the large one are just the exact width of the door and architrave, and the stiles finish "flush" with the edge of the frame. When this arrangement can be carried out it gives increased emphasis to the door, but when the door is placed further away from the angle of the wall this cannot be, as the stile of the panels on each wall must meet in the corners. In throwing the dado, wall, and frieze, into panels we have had several points in view. It will be seen that the small panels of the dado and frieze are exactly opposite or exactly above and below the stiles of the wall panels. The effect of this arrangement

is to carry the eye upwards between the lines and thus preserve the apparent height of the room, otherwise the effect of the panelling would be to decrease its height, as it is a well known fact that perpendicular lines add to the apparent height of a wall, while horizontal lines have the opposite effect. This will be fully demonstrated if we paper a room with the striped papers which were so fashionable some years ago, but which have been relegated to attics and servants' rooms. In the wall panelling we have put a diaper on the stiles leaving the panels plain. In adopting this plan, which is somewhat of an innovation, we obtain the advantage of breaking up the plainness of the wall with a pleasant contrast and secure a plain and suitable background for the pictures. There can be no question of the superiority of plain coloured walls for hanging any kind of pictures upon, providing the colour is a suitable one; we thus avoid confusion, and contrast the picture with its surroundings with the best results. In putting ornament on the various parts we have been governed by a wish to benefit our subscribers to the fullest extent, and have designed each ornament so that it may be used separately, for the same purpose it is used here, or for any other decorative works, either in whole or in part. The door panels show an "asticle" bead. This is a style of panel greatly in vogue fifty or sixty years ago, and is a structural form which besides being handsome in itself, is admirably adapted for decorative purposes. The scheme of colour suitable for a design of this description may, of course, be varied according to the circumstances of each or every particular case. A writer in the *Builder* says green is a good colour for a wall and blue for a ceiling. In nature this arrangement is continually before us, and brown and greenish brown tints of trees are interposed amidst the natural wall. So, given a green flat surface, the column or pilaster attached to or in connection with it, may be painted another green or brown, not only because nature so paints the trunks amidst the green leaves, but because green and brown are colours in harmonious relation. No quality or arrangement of colour can be beautiful on which the eye does not rest reposefully. That which hurts the eye cannot be admitted largely into the domain of art. The eye revels or reposes among the greens, browns, violets, and purples which nature lavishly sets forth to our view. So should we select those colours as key-notes in art, which she teaches us are beautiful. While agreeing in the main with the writer referred to, we must point out as we have before had occasion to do, that theories are all very well and are of the utmost value when put forth by competent men of large experience in their application, but in practice must be received with a grain or two of salt. We cannot see any beauty in a room being painted with representations of water and fishes, trees and sky, and birds. We prefer to go to nature herself for these, and not to abortive imitations of her beauties; crowded on the walls around us and ever present. This style may be fashionable but very far from being pure either in taste or style. It cannot be too often repeated that, for domestic decoration, simplicity, quietness, repose, and purity of colouring is the only true treatment so as to avoid vulgarity. We therefore in describing the colours to be used in the working out of the examples illustrated shall strictly adhere to the above principles, feeling well assured that if faithfully followed they will lead to a successful result. Commencing with the wall space—which being the largest surface of colour, will of necessity govern the rest—we will paint it of a tone or tint of colour made—if the wall is a distemper—from lime blue and raw umber. This umber should be of a golden or deep ochre tint. This mixture with white produces what may be termed a neutral colour of a slightly green tint, not green in itself as we understand green colour, but a green tint in contrast with warm colours, and it is an admirable colour contrasted with either engravings, water colours, or oil paintings. Of course the shade or depth of this colour will be regulated by individual taste or the degree of light admitted into the room in which it is used. The stiles to panels may either be painted in a slightly darker shade of the same colour with a touch of Indian red added, or may remain of the same colour as the panels and the pattern stencilled in of the colour just named. This with the lines will give sufficient distinction to each and cause the stiles to appear of another colour entirely. We must here give caution as to the depth of colour for stencil pattern, which should be just strong enough to be seen clearly, if too strong it will be vulgar. The lines round panels should be stronger in tone and made with umber, Indian red, and white, but even these should not stand out in too pronounced a manner from the other colours, but only sufficiently to clearly define the limits of each panel, the inner or fine line may be of the same colour as the broad line or even warmer in hue. We will next take the dado. In this design we do not show a dado band or border, simply because it would interfere with the pattern on the stiles of the panels, but the division may be done by lines or by a wooden surbace moulding. We would paint the dado with a darker tone of colour made with raw umber, Brunswick green, Indian red, and white if in oil colour, and lime blue instead of the green if in distemper, on this we should stencil in the backgrounds of the corners of the panels, as shown by the darkest parts on the drawing, with dark brown made from umber, Indian red, and black, and we should stencil in the pattern on the panels with a slightly lighter shade of the same colour as the panels themselves sufficiently strong to show the pattern clearly. The lines round panels to be done with a strong dark dull gold colour made with ochre and umber alone, or they may be run in with the same colour as the stencil on the panels, or gold lines may be used, but in this case the gold lines should be finished with a fine black line on each side of the gold. The skirting may be done with the same colour as the corners of the panels are stencilled with. We now take the frieze and cornice. Underneath the frieze we have placed a picture moulding which may be either gold and black, or painted with the wall. The whole of the breadth of frieze may be painted with the same colour as the wall space but with a little ochre and Indian red added, the panels being treated in the same manner as the dado panels but with a tone of

warm green for the dark corners and a lighter shade of the panel colour for the ornament on the panels and the lines run with a dull gold colour. The cove of cornice would be best of a greenish grey tone, made with green, blue, and a slight strain of red, and the ornament upon it to be stencilled in a warm golden brown, or in a darker tone of the grey but with more red added. The mouldings and other members of the cornice to be put in, in buffs, cream colours, and lines of white when practicable, taking care not to put the retiring colours on to the projecting parts nor the advancing colour into the quirks or background. We have now but to describe the door, all other woodwork being done in the same colours. The panels of the door and flat of architrave may be painted with the dark dull gold colour used for the lines of wall panels, the background behind the ornament being stencilled or painted in with the dark brown or even pure black, and the ornament outlined either with a lighter colour of the same hue as itself, or with gold. The circle with medallion in centre should be painted in either bluish white or cameo colour, and the background either dark blue, or gold, and the heads worked in slight relief by shading with a white shade colour made from Vandyke brown, ultramarine blue, and white, or burnt umber, cobalt, and white. By careful working, the exact colour of the light and shade of a cameo may be thus obtained. The stiles of door and parts of the frame may be done with the dark brown as on skirting. Parts of mouldings on door and frame may be gilt, and part black.

Our second double-page illustration consists of six borders, two of which are geometrical in design, two in the semi-naturalistic style (composed of the oak leaf and acorn, and the chrysanthemum flower and leaf), and two conventional designs. Nos. 4 and 5 might be used for church decoration, the one containing the rose and lily, and the other the rose and ivy leaf and berry. We wish to point out what we have before stated that by the use of any tube colours mixed and thinned with turpentine with some white wax added thereto we may add several colours to the stencilled pattern when dry after the background has been stencilled in. For instance in border No. 5 we might stencil in the background any dark colour, and when this is dry we can paint over the berries with this thin wax colour, which is transparent or semi-transparent, and make them red and the leaves green and so on. This need not be particularly done, as the colour will not show whenever it goes beyond the leaf or berry on to the dark background. The oak leaf may thus be done green and the acorns their natural colour. The medium will answer upon distemper as well as oil. This plan may also be adopted when a light colour is stencilled on a dark one, parts of which may thus be coloured quickly and effectually and with very little trouble, and is adapted to all kinds of stencil work.

IMPORTANT.

To meet the wishes of many subscribers we are willing to supply them with copies of the above borders full working size, stencilled on cartridge paper ready for cutting, at two shillings the set, post paid.

OWEN JONES & HIS CONTEMPORARIES.

Sir Henry Cole, K.C.B.

Continued from Page 244.

NEITHER the Department of Science and Art nor the South Kensington Museum sufficed to exhaust the untiring energies of Sir Henry Cole. He was English Commissioner at the Paris Exhibition in 1855, and again in 1867, and he was among the principal managers of the International Exhibition of 1862 in London. He organised the annual exhibitions which were held in London in 1872 and the two following years, he was an active Vice-President of the Society of Arts, and he was among the first originators and most energetic promoters of the Royal Albert Hall. In 1873, after fifty years of public service, he retired on a full pension specially awarded by the Treasury. But Sir Henry Cole's retirement from the public service brought no cessation from his active and philanthropic labours. In 1873, with the aid of the Society of Arts, he established the National Training School for Music, an institution which did good service in its time, and in 1874 he founded the National Training School for Cookery at South Kensington. From 1876 to 1879 he lived at Birmingham and Manchester, where he devoted himself to an endeavour, not so successful as he hoped, to induce the municipal authorities to turn their attention to plans for the utilization of sewage. But his residence at Birmingham secured him the acquaintance and ultimately the friendship of Cardinal Newman, with whom he maintained a frequent and intimate correspondence down to the time of his death. In 1879 he returned to the neighbourhood of London and settled at Hampstead until the spring of 1880, when he went to live once more at South Kensington in the house in which he died on Tuesday, April 19th. Last year Sir Henry Cole commenced framing a scheme for the formation of Guilds of Health—a design for diffusing common sanitary knowledge and an acquaintance with the ordinary rules for insuring health among all classes of the people. This plan is left incomplete by its originator, but the Society of Arts is to hold this year a meeting or conference for discussing it and for publishing information on the subject. During the last six months Sir Henry Cole had devoted much time, with the assistance of his daughter, to an account of his fifty years of labour in the service of the public. He had completed chapters upon his connection with the Penny Postage scheme and the Public Record Office, upon his various handbooks to public collections and public buildings, and upon the Great Exhibition of 1851, and he has left materials for the completion of the work.

Sir Henry Cole was spared the pain of a long illness. For some time he had suffered from an affection of the heart, and his medical attendants had recommended caution and freedom from excitement. But he continued to attend to his various occupations until the middle of last week, when on

his return from a brief visit to Tunbridge Wells he over-exerted himself at a meeting which he attended in the City. By Sunday, however, he was considerably recovered and on Monday he felt well enough to sit for an hour to Mr. Whistler, who was engaged on his portrait. On Monday evening, April 18th, he became seriously ill, the affection of the heart being complicated by congestion of the lungs, apparently due to exposure during the previous week. His condition was not considered specially critical, but on Tuesday evening he died, painlessly and without warning.

Such is a brief record of an active, beneficent, and well-spent life. Sir Henry Cole had many difficulties to encounter, many opponents to vanquish, much obloquy to undergo, and not a little ill-nature to contend with. But all these obstacles he finally overcame, and no one can say that the work he actually accomplished fell short of the ability and public spirit with which he laboured. Whatever mistakes he may have made, however much the means he employed may have been criticised and fairly open to criticism, it will hardly be denied that the work of his life was great in conception and great in execution, or that the creator of the South Kensington Museum did as much as any man of his time to recover the industrial arts of his country from the almost hopeless degradation into which they had fallen at the middle of the present century.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 252.)

CHAPTER XXIII.—MARBLES AND MARBLING.

IN softening or blending in Sienna marble with the veins and colours laid in, we shall find—if the crayons have been properly made and the hoghair softener used in the manner described—that the veins put in with the feather and those with the crayon will blend sufficiently without becoming obliterated or worked out of their original form. We urge upon the student to be specially careful in this operation, otherwise the work will be completely spoiled.

We will now assume that the two blocks are rubbed in and dry ready for glazing, and also that they have been veined and worked in accordance with the instructions previously given as to the dark part of the one block coming up against the light part of the other block.

It is often the case that in imitating marbles the artist will finish his work at one painting. This is a mistake, that is, if we wish to make a good job. Glazing is a very important part of the process, and in some marbles is the only way in which an imitation can be made. Glazing gives us the opportunity of enriching the colour, and imparting to the work that depth and transparency without which no good imitation can be made. With it, also, we can emphasise the division of the blocks—make them lighter or darker in parts, as desired, and in fact, give that finish and completeness which cannot possibly be got without it. We now mix pure white—flake white from the tube we prefer—thin with turps; we then take a large feather and dip it into the white, and scumble over the work with it, using it freely, letting it pass over the veins and plain spaces, and then softening with the badger-hair softener as we go along. If this is properly done it will appear as a soft semi-transparent glaze of white over, and in, and about the veins. We now use solid white in conjunction with a blueish grey. We put in small patches and bits of this solid white between the veins, then go over them with the thin blueish grey, and while wet gently soften or blend with the badger-hair softener. If carefully done this will produce the exact imitation of those portions or bits of transparent and semi-transparent white spar which we see as a large feature in Sienna marble, and, in fact, in almost every marble. It depends a good deal upon these being properly done whether the imitation is a good one or not. We have seen work turned out by some of the best firms in the kingdom in which this feature has been entirely absent, the result being dauby or painty, and it does not matter how much time may be spent in the preparation of the work or the polishing; when finished it will not look like the marble.

After the scumbling is done, we take a flat tin tool and glaze over some of the patches in and about the principal veins with the darker shade of yellow, or yellow and vermilion. Now this should be done with judgment—parts only of some of the patches should be done; and if we glaze in some very small bits upon the semi-transparent and solid whites we thereby give them greater depth and enrich the work. If we look at a specimen of the real marble it will be plainly seen at once what we mean. It is in these apparently small matters that the difference lies between a poor imitation and a first-class one. The work should now have one coat of varnish, and upon this the glazing may be again retouched in parts if it is desirable to do so, as it will then be seen what effect the varnish has had upon the previous work, and it may be darkened here, and lightened there, as it may require.

It must be understood that when Sienna marble is used upon pilasters or columns, it may be worked much darker in colour than that we have been describing, and we need not be afraid of our colour being too deep, as there are blocks of the real marble in which the veins, and the yellows, reds, and greys are very dark and strong indeed.

We frequently see it recommended by persons who have written what they term "Instructions in Marbling," that turpentine should be spurted or thrown upon gold size colour in order to open it and form round spots upon it. This kind of instruction is only calculated to mislead the student

and is of no use whatever in marbling, and is only resorted to by those who do not know any better, as will be at once perceived on a careful study of the real marble.

Italian Pink.

Italian pink is the English name given to it by marble masons and marblers on account of its peculiar colour, which is of a soft pinky tone or hue, but it is one of a series of marbles which range in colour from a light pink with rose colour, yellow, violet, and purple-brown veins, to a dark dull red with black and purple veins, interspersed with white, dark-red, and yellow patches, and are called Breche marbles. It is said that this name is given to them on account of their particular form, which appears as if they had originally been formed in great blocks, then broken up again into all sizes of irregular pieces, sharp and angular, just as glass or earthenware breaks up when forcibly broken with the blow of a hammer. These broken pieces are again united by petrifaction and cemented into great blocks, still retaining all the appearance of having been broken in the manner described, and differing from Sienna marble in the sharp angular character of the various patches. Sienna, while it is broken up into innumerable patches by its veins, has not the angularity or sharp-pointedness of the patches of the Breche marbles, marking out with great distinctness the particular series to which it belongs, and we would urge upon the student the necessity of studying these points. He will find that each marble has a distinct character of its own, and it is only attention to these apparently small matters that distinguishes the good workman from the poor one. Whether the name Breche originates from the character of the marble or from its being obtained from quarries in the neighbourhood of Brechia, in Italy, is not material to our purpose. Italian pink is certainly a very appropriate name to give to that kind of the Breche marbles which is light in character, and best adapted for using in large masses for staircase walls, vestibules, &c. It is the most pleasing and most valuable of them all. Italian pink is of a beautiful pinky hue, approaching to white in some parts, and is broken up into sharp angular and irregular patches of every size and shape by veins of yellow, red, purple, and occasionally black. Across many of the patches is a semi-transparent grain or marking in pink, grey, and red, somewhat similar in form to the markings of cornelian, and seems to have been floated in a liquid state on to or into the original blocks before being broken up by some convulsion of nature.

We frequently find two pieces or patches lying close together which have these veins or grains running across them, shewing that if they were turned round and placed close together, that the grain of the one would exactly fit against the grain of the other, and match exactly. This is so much the case that it leads inevitably to the conclusion that they at one time formed one piece or slab. The grain or markings we are speaking about are some of them very beautiful. Some are yellow, others violet, and others again grey, which affords a wide scope for artistic treatment in the finish.

The crayons and colour required for Italian pink are as follows :—

No. 1.—Black.

No. 2.—A dark colour made with drop black, Indian red, and ultramarine blue, constituting a dark purple crayon.

No. 3.—This crayon is made with Indian red and Oxford ochre.

No. 4.—Indian red and light red (burnt ochre).

No. 5.—Made with Oxford ochre and a little orange chrome, with a slight touch of Indian red, forming a crayon of a light yellow hue.

The ground colour must be pure white stippled as before described. The rubbing in or working colour must be made of best white lead or flake white stained to a light pink with the best vermilion, and mixed with pure linseed oil. This is much better if it is clarified or made as free from colour as possible, as we thus get a purer working colour not likely to change or get discoloured by exposure. We shall also require a pot with vermilion mixed with a little of the rubbing in colour and made thin with turps, ultramarine blue prepared in the same manner and used thin, and Oxford ochre in the same form.

In working this imitation of Italian pink on a staircase or other large surface, we of course set out the blocks in the same manner as described for Sienna marbles, and rub in the working colour as bare as possible. We now put in a leading vein right across the block or slab lengthways, with the black or dark coloured crayon. We may note here that in all blocks of veined marbles the mass of the broken pieces and the darkest colour invariably rest or are crowded upon or around a leading vein, so called from its being in all cases the darkest and strongest feature in the slab or block, and while it is a natural feature of these marbles it is also the most convenient form possible for working the imitation, as it gives us a base upon which to rest the mass of work and give it the least objectional form. When this leading vein is put in, we use the next darkest crayon and break up the slab into large and small patches in and about the leading vein into still more angular and irregular patches of broken pieces, the small ones running in between the large ones. We now use the red crayon and still further break up the surface, but in this case gradually breaking away into the large plain spaces and further away from the darkest vein. Then with the yellow crayon we still further break up the large patches. We now take a flat camel hair tin tool and paint in a portion of the large and small patches with the thin vermilion tint, doing the same with the thin blue, putting in a touch of the latter here and there amongst and on the veins. We now soften a little with the hog hair softener, but not fully. We then dip a feather into the Oxford ochre thinned with turps and put in some fine veins in and about the small patches and across the larger ones, gradually breaking away into the large plain spaces. When this is done and has stood a little while, we carefully soften the whole, bearing constantly in mind what we have before said as to

using the softener, not to smear or blend the one into the other so as to destroy the sharpness and angularity of the various forms, but let each vein however small or faint be still seen after the whole has been properly blended and softened.

(To be continued.)

DECORATIVE ART IN AMERICA.

WITHIN the memory of even young men it was a very prevalent opinion in England that our Transatlantic cousins were utterly ignorant in all that related to Art, and careless and indifferent to its teachings. The eminently practical character of the American mind, it was thought would not admit any other idea but money making. No doubt this state of things did exist at a comparatively recent date, but it is rapidly becoming a thing of the past. New countries are not as a rule the most favourably situated for the cultivation of Art knowledge, and it is only in the long-settled parts where wealth and culture are found, that Art, in any form is at all cultivated. The opulent classes who visited Europe acquired a taste for *Objects d'Art*, which their wealth enabled them to purchase and send home for the embellishment of their homes, and thus the teaching began. Pictures, engravings, statues, ancient armour and everything that tends to embellish and enrich, were imported into America from the Old World. These causes have had a very powerful influence in forming and teaching a knowledge of Art and bringing about a better state of things. The cultivated class of Americans have found that there is something else to live for than the accumulation of dollars, that life may be made beautiful, and home what it ought to be, by the aid of Art culture. We find that the result of all this has been to foster and encourage Art in all its different phases. In painting and sculpture America is fast treading upon the heels of older countries. In wood engraving, type founding, stained and painted glass, in ceramic ware, and in many other branches of Art work the Americans are producing work quite equal and in some cases superior to much of the Art work, of Europe. There is little room for surprise at this result, when we consider the millions of emigrants yearly flocking into the States, many of whom are artists from Germany, France, Italy, and England; in the new country they find a wide field opened to them, and patrons in plenty, a luxury denied to them in the Old World; whilst amongst them are to be found some men of exceptional talent, who also readily find a market for their productions. We cannot say that the "stars and stripes" have yet produced a truly great painter, but the Art is rapidly taking its proper place, and is being generally recognised as one of the great civilising forces which has had its effect upon all the great and glorious periods in the history of nations, from the ancient Egyptian to the present time. This being so we may confidently predict a grand future in Art, for the mighty offspring of our own little Isle. In Art publications issued by American firms we have nothing but praise to bestow, and that of no limited nature. We need but mention *Harper's* and *Scribner's Magazines* in the region of Pictorial Art, to prove that in the region of wood engraving these publications equal, and in some respects surpass, their European rivals. In the wonderful rendering of figures, land-and-seascapes, displayed in their columns; their productions are executed in a style, unknown to our own engravers, until they appeared in the above publications, and we find that they are being extensively imitated by European artists. In the region of Decorative Art proper, our cousins are making rapid strides. Decorative literature is having a widespread influence. Of journals of this class we have the *Art Amateur*, a publication, which for "get-up" and real sterling work, is equal to anything of its class produced elsewhere. It is true many of its illustrations are culled from European journals, that under the circumstance is unavoidable, but apart from that there is a very large percentage of original matter in its pages, and valuable matter too. It has an exceptionally large circulation and must in consequence be a powerful agent for good; the arrangement of the various subjects under their different headings is admirable, and in fact we know of no journal in our own country, if we except the *Magazine of Art* and *Art Journal* which is so valuable to the amateur in Art matters. Of purely trade journals there are some admirable examples. Of these *The American Furniture Gazette*, and *The Builder and Woodworker* are the principal. *The Furniture Gazette* in its paper, type, and illustrations would do credit to any firm either in the New or Old World, and we may say the same of the other trade publication. All these journals devote a considerable portion of their space to the spread of the knowledge of Decorative Art and Art furnishing, all tending to swell the great wave of Art and its teachings which is now spreading over the whole of the American continent. This movement has already borne its fruits, and it is an indisputable fact that at the present moment all the most important artistic publications have far more subscribers in the United States than in England, where we are too apt to rely upon what we have done and jog on in the old *routine* path, producing over and over again the same patterns and the same ideas. In America they have no traditions to rely upon, all is new, they therefore bring to the practice of Art all that freshness, energy, and inventive genius, so characteristic of their country, no vested interests nor Old World notions stand in the way of improvement or change—what the mind conceives, the hand doeth, without fear or favour, what a man has in him, he has the opportunity of bringing out, and he is encouraged on all hands — by the certainty of remunerative sale—to persevere; nor is he held

back by any of the conventionalisms of trade or custom, but has free scope for the exercise of his talents. With these advantages, coupled with the fact that he—if intelligent—may start in the race with the advantage of a knowledge of all that has been done before in the Old World, gives to the American workman, a position that must inevitably lead to the spread and practice of the best principles of Decorative Art, and enable him to attain to the same distinction in the Graphic and Decorative Arts, that he has already reached in the Constructive Arts, and thus through him and his productions, the spread of knowledge of the Decorative Arts will be rapid and permanent amongst his countrymen.

TRADE INTELLIGENCE.

It was with mingled feelings that we heard of the coloured plate (we gave with our August number) having been sold separately for 1s. 6d. If we could only negotiate sales like that, we should soon be able to give our subscribers coloured plates every month. We have had many expressions of appreciation from all parts of the kingdom, evidencing that our efforts to give the Painting Trade good, instructive, and useful information and designs, are not lost sight of.

Messrs. Wilkinson, Heywood, and Clark have just issued a small book of Tints, showing various colours in a pure state, and as mixed with whiting. We have no hesitation in saying, that the colours contained in this little book are purer and finer than anything we have seen of the kind before. There is a fine range of greens, "Florence, Naiad, Iceland, Jade and Sage," and some beautiful reds, yellows, blues and pinks. The prices for many of the colours are not only reasonable, but positively cheap; the colours are supplied either dry, in pulp, or ground in oil. A further advantage in using these colours is that they are not affected in the least by lime. We cannot do better than advise our readers to test the truth of our statement by sending for one of the books in question.

Mr. George Potter recently wrote a letter to the *Times* anent the proposal which has been made in certain circles to introduce Chinese and German labour into this country. In view of the present over-crowded state of the labour market in almost every department of industry, such a proposal if it ever assumes serious and practical form, should at once receive the attention of the Government. Social and economic problems are difficult enough to solve under existing conditions, but in the face of a large immigration of Chinese and foreign (imported) labour, the outlook would be dreary indeed. Fortunately, as a writer on the subject has said, there is one barrier that is likely to be effectual in regulating the mischief as far as John Chinaman is concerned, and that is, the distance between here and the Celestial Empire. J. C. has an insurmountable love of home, and is little disposed to wander beyond any distance from whence he cannot readily return. We hope this instinct may never be lessened and that (at all events in quantities) he may for a long time to come sing "there's no place like home."

Decorators in Lancashire, Yorkshire, and Cheshire are requested to look for the display of Lincustra Walton at the St. James's Hall Exhibition on the 20th inst. The form of the exhibit will be novel, and of a character calculated to show both the variety and the artistic value of this beautiful material. In every respect the Exhibition is likely to be a great success, some of the first firms in the country having given in their names as exhibitors.

The following extracts from the Employers' Liability Act, 1880, are of moment to employers in the house-painting trade:

1. Where after the commencement of this Act personal injury is caused to a workman

(1.) By reason of any defect in the condition of the ways, works, machinery, or plant connected with or used in the business of the employer; or

(2) By reason of the negligence of any person in the service of the employer who has any superintendence entrusted to him whilst in the exercise of such superintendence; or

(3) By reason of the negligence of any person in the service of the employer to whose orders or directions the workman at the time of the injury was bound to conform, and did conform where such injury resulted from his having so conformed; or

(4) By reason of the act or omission of any person in the service of the employer done or made in obedience to the rules or bye-laws of the employer, or in obedience to particular instructions given by any person delegated with the authority of the employer in that behalf,

"The workman, or, in case the injury results in death, the legal personal representatives of the workman, and any persons entitled in case of death, shall have the same right of compensation and remedies against the employer as if the workman had not been a workman of nor in the service of the employer, nor engaged in his work."

The Sanitary Paint Co. (Messrs. Griffiths, Berdoe & Co.), Liverpool, received the following very complimentary testimonial from E. R. Robson, Esq., F.S.A., architect to the London School Board:—

41, Parliament Street, Westminster, June 20th, 1882.

Sir,—In reply to your inquiry I beg to say that I have found the paints of the Sanitary Paint Company to be the best for all internal work where cleanliness and true sanitariness is desired. In houses they are useful for passages, halls, kitchens, and in schools and hospitals I find that they become like new on the application of soap and water and the scrubbing-brush.—Yours faithfully, E. R. Robson.

We are informed that the whole of the London School Board Schools have been painted with Messrs. Griffiths, Berdoe, and Co.'s goods this year, and that so great has been the demand for Griffiths' Patent White during the last twelve months, that additional plant has had to be laid down, and premises erected in order to supply it in sufficient quantities. This is an evidence of vitality we are glad to see.

Wood Tapestry is the name given to an extremely thin veneer, which is mounted on Paper and supplied in rolls for dados, wall coverings and many other purposes of a decorative kind. The specimens we have had sent us are very beautiful indeed, and the machinery capable of cutting these veneers, so fine and yet so perfect, must be as near mechanical perfection as it is possible to attain. Woods are inlaid in designs—both broad and fine—in solid masses, and then passed through the machine which take a shaving off as fine as it is possible to cut it, these are afterwards attached to brown paper and can be hung with ordinary paste in the manner of paper hangings. We can see many uses this beautiful work can be applied to. The "Tapestry" can afterwards be polished, varnished, waxed, or left in its manufactured state. The patentee and proprietor is Mr. Wilmersdorffer, 72, Finsbury Pavement, E.C., who will no doubt be pleased to supply specimens and prices on application.

ANSWERS TO CORRESPONDENTS.

T. Jackson & Son.—It is optional. We bound them up in Vol. I., whilst some of our subscribers had the coloured plates framed. Vol. I., we regret to say, is quite sold out.

Constant Reader, Warwick.—We are in negotiation with some marble masons for the purpose named in your letter, and will advise you through these columns as soon as we have made a definite arrangement.

T. R., Wolverhampton.—Our reply given to "Constant Reader" will answer your query. We cannot see our way to fall in with your other suggestion.

R. C. X., York.—We think Mr. J. Hill, 230, Pentonville Road, King's Cross, London, N., will be able to supply your wants.

J. H.—Messrs. Tudor & Co., of College Hill, London, and Hull, are one of a very limited number of firms who do actually manufacture white lead from the ore, many firms passing off as manufacturers who are only grinders of it.



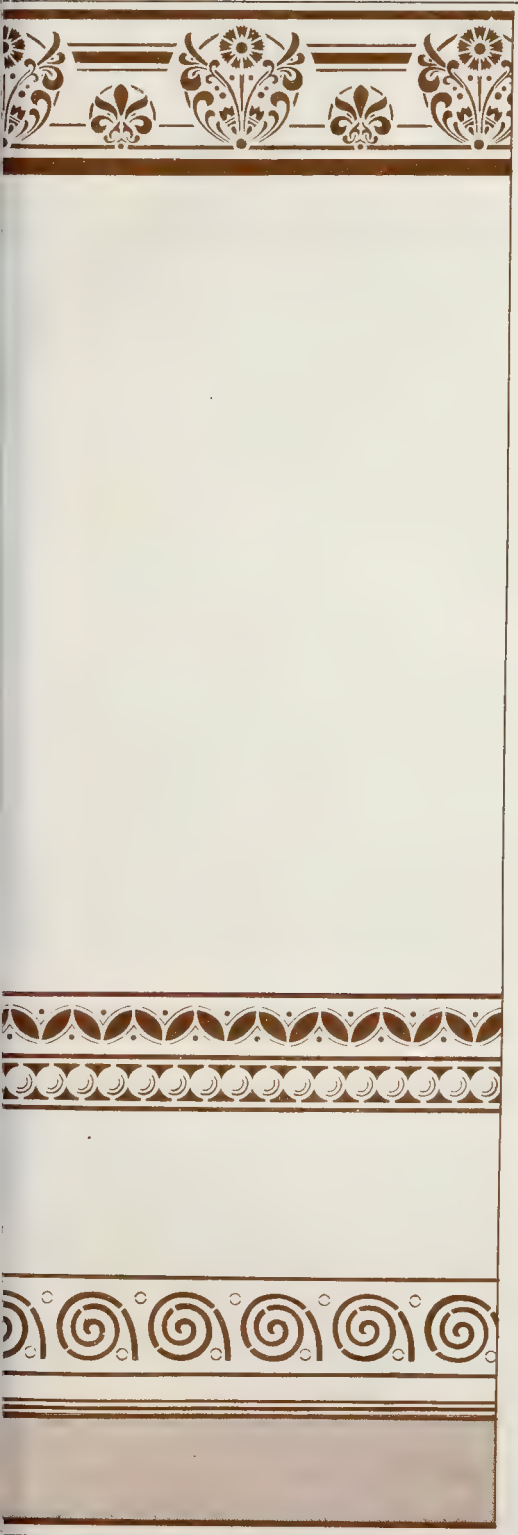
W. G. Sutherland, Invt.

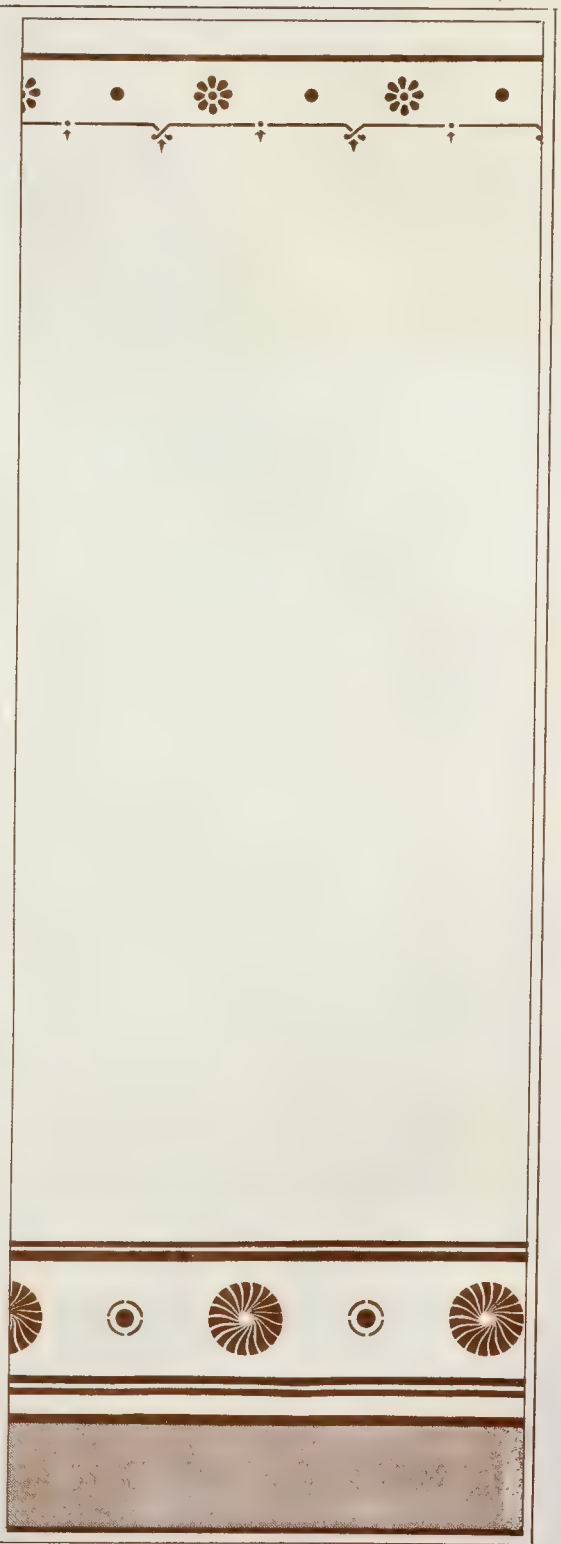
No. 3. DRAWING ROOM DECORATION
(executed in Duresco).



No. 4. DINING ROOM DECORATION.
(executed in Duresco).

Specially Designed for this





A. A. Sutherland, Delt.

No. 5. STAIRCASE DECORATION.
(executed in Duresco).

No. 6. BEDROOM DECORATION.
(executed in Duresco).

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The Journal of Decorative Art.

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"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

THE 'JOURNAL OF DECORATIVE ART"

SECOND ANNUAL

Prize Scheme, Exhibition, and Competition,

APRIL, 1883.

WE feel that the Prize Scheme which we announced last month is of sufficient importance to warrant our reproducing the list of prizes offered; in this month's issue, without any apology. Though we have not fixed a limit for receiving applications for space, we would suggest to intending competitors that they make an early application, so as to give us the chance of extending our accommodation should it be necessary.

SECTION I.—CLASS A.

The "CHARLTON PRIZE," value £30, contributed by Messrs. J. B. Orr & Co., 46, Cannon Street, E.C.

First Prize, £12 10s. | Second Prize, £5 10s.

CLASS B.

First Prize, £8 0s. | Second Prize, £4 0s.

SECTION II.—CLASS C.

The "WILKINSON, HEYWOOD, & CLARK PRIZE," value £30, contributed by Messrs. Wilkinson, Heywood, and Clark.

First Prize, £20 0s. | Second Prize, £10 0s.

SECTION III.—CLASS D.

The "YORKSHIRE PRIZE," value £15, contributed by the Yorkshire Varnish Company, Ripon.

First Prize, £10 0s. | Second Prize, £5 0s.

SECTION IV.—CLASS E.

The "CROWDEN & GARROD PRIZE," value £12 10s., contributed by Messrs. Crowden and Garrod.

First Prize, £7 10s. | Second Prize, £5 0s.

SECTION V.—CLASS F.

The "SUNBURY PRIZE," value £15, contributed by Messrs. F. Walton & Co., Limited, Sunbury-on-Thames.

First Prize, £10 0s. | Second Prize, £5 0s.

SECTION VI.—CLASS G.

The "BRISTOL PRIZE," value £15, contributed by Mr. T. C. Stock, Victoria Street, Bristol.

First Prize, £10 0s. | Second Prize, £5 0s.

SECTION VII.—CLASS H.

The "SUTHERLAND PRIZE," value £10 10s.

First Prize, £7 0s. | Second Prize, £3 10s.

Total value of Prizes, £128 0s.

For further particulars and conditions see October number.

In view of the importance of the exhibition next year, we would throw out a few hints for the consideration and guidance of intending competitors.

Our exhibition of this year fell very far short in the exhibits of the character and style we had a right to expect from the amount of the prizes given. We were somewhat surprised and disappointed at the meagre results produced, the specimens sent in being with some exceptions below mediocrity. Whether this arose from causes which might have been avoided on the part of the promoters of the exhibition, or whether those workmen who could have sent in creditable specimens did not think it worth their while to do so; boots not to inquire now. But we have a confident hope that the increased value of the prizes, their wider scope, and the absence of any restrictions such as obtained last year, will induce a much larger and better class of workmen and students to compete.

It is a good thing when we are about to undertake any important work to know thoroughly what we are going to do. It has been said by some eminent authority that we should never begin any design except we can see it in our mind's eye finished and complete. There is a good deal of truth in this although men of the longest experience and practice again and again see cause to modify their plans as they progress; but still, so far as it is possible we should see and thoroughly comprehend what we are going to do before we do it. Applying this theory to our present object, we would advise intending competitors to carefully study their designs before executing them. The best way to do this is to make a small design of what we intend to do, colour it and finish it. This may be coarsely done, or exact, as the designer may choose, but he will find it of very great assistance to him in his larger work, for he will then have a definite thing to do, can go straight on with his work, and as he looks at his model time after time, improvements in form and colour will dawn upon his mind without any effort, and thus he will be enabled to produce a much better work than he would without such aid. Let him first decide what he will do, then make the small sketch drawing; when he has satisfied himself

with that, then let him prepare and set out the actual work to be exhibited, this is the only road to success.

In the designing of each or any of the decorative works we would say, aim at simplicity and purity of form and colour, avoid overcrowding. This latter was the great fault of even the prize designs of the exhibition of last year. The design which took the highest prize, while it had high merit in its execution, was as a design greatly overcrowded. This is a fault we are all but too apt to run into. We are so desirous to excel that we cannot satisfy ourselves, until we have crowded in as much work as possible. Of course it is a most difficult matter to know when to leave off, and this knowledge is only acquired by long experience and a thorough mastery of our work, but it is a fact that nine-tenths of our work is spoiled by this fault. We would therefore urge upon those who intend to send in works for competition to aim at simplicity of form, gracefulness of line, and purity and harmony of colouring. Avoid vulgarity in colour by cultivating an appearance of repose; let there be no colour or form to offend the eye, let quietness pervade the general tone of the work, so that one part shall not stand out too prominent to the overpowering and obscuring of others. Avoid violent contrasts. Richness and splendour may be obtained without vulgarity, and with quietness and repose. Positive colours are always dangerous to repose, except when put together with consummate skill, but that they can be so put together is a fact beyond dispute. We have only to look at an Indian shawl—some of which cost hundreds of pounds—to see red, blue, and yellow in their brightest hues mingled together and so subtly arranged, that no one colour is seen before another, but the whole produces a rich bloom of colour in which by looking closely we may discover the most brilliant colours contrasted the one with the other in all their pristine glory; and yet the result of the whole is repose. Now this in a moderate degree is the object we ought to aim at, not that we mean to transfer the style of the ornament and colour of a Cashmere shawl to the decoration of our walls and doors, but that in accordance with the object to be decorated we should so adapt our ornament and colour, that in the finish the effect shall be simplicity of line, combined with purity of colour in adaptation to the thing to be decorated. For it must be understood that although good colouring will sometimes make us look over defect of form, yet it is only by a combination of the two that really good works can be produced, the one is quite as essential as the other.

We would also urge upon competitors to keep in view the fact that the designs sent in should be thoroughly practical in their character, and not fancy sketches, difficult or impossible of being executed except at an enormous cost. This is not the object of these exhibitions. We would recommend that each should work his design out in exactly the same manner and in the same way as if he were actually doing it on the walls or woodwork of a room, and not as a fancy drawing into which he must crowd all that he is capable of; that is not what is required. Whatever the design may be, however simple in its character, every line and dot should be done as correctly and as well as he knows how, but whatever it is let it be such as can be worked out at as moderate a cost as is consistent with really good work.

With regard to those who intend to compete in the graining and marbling classes we have a few words to say. Those of our readers who have read our articles upon graining and marbling need hardly be told that what we have written is the result of long years of practice and study of the subject, and that what we have got to say to intending competitors is worthy of their consideration.

It has been said by several would-be prophets that marbling and graining have had their day and are gradually going out to be seen no more. It is quite true that graining and marbling has not been so much used for some years as it used to be, but this has been more the effect of that irresistible power called fashion, than from any demerits in the practice itself. The fashion of plastering any kind of ornament upon the woodwork of our dwelling-rooms, has been fostered without rhyme or reason by architects in the first instance, who have affected a hatred of shams, and as a natural consequence of their position they have influenced the public who straightway began to affect a sham hatred of their so-called shams, and to pander to this sham, a host of stencil cutters and designers have sprung up who have deluged the country with worthless stencil patterns at sixpence and a shilling per dozen! and this is called art work! What a misnomer. Why, one well grained door, is worth a hundred such abortive attempts at decorative art. We have said this much to account for the apparent decrease in the practice of imitative art. But we have not the slightest doubt but that graining and marbling will again flourish and be universally practised. But in order to hasten and effect this object there are two or three things the grainer should keep in view. Many of our remarks on decorative design will also apply to imitations of woods and marbles. It is unfortunately the tendency of grainers as well as of decorators, to crowd their work with too much figure or mottle. We were looking the other day at some oak graining done by Mr. Jones, the inventor of the over-graining rollers we have commended to our readers; to us it was a pleasure to study it; the oak was light in colour, well and naturally combed, simple and free in its figure or dapple, and the general tone quiet and exceedingly good: the heart and figure spring naturally out of the grain; we should not have taken it for real oak, but it is very likely a novice would have done so; there was no pretence about it either in working or colour, but a simple masterly touch which showed a highly skilled hand allied to a quiet good taste. Now it is this fact we wish to impress upon the competitors in this class. We would have them strive to turn out work having a quiet natural appearance, not overcrowded, but of the best the hand can produce. In imitations of oak this quality makes all the difference between vulgarity and good taste. The same principle, but to a lesser extent, obtains with all woods and, in fact,

marbles too. The door we spoke of above was a suitable work for any situation, because of the good taste displayed in its execution; but had it been done as we see so much graining done it would have been utterly out of place in any third rate house. We would therefore urge upon the student (for all good workmen are students, whatever their age may be) to aim at the qualities commended above, and the more he succeeds in accomplishing these ends the better and more pleasing will his work be. These qualities need not be absent from any wood or marble, however splendid or rich it may be in colour. The beautiful curl or feather of mahogany, the rich but delicate hues of satin wood and maple, need not have one tittle of their splendour left out in the imitations; but by a judicious contrast of the plain or comparatively plain parts with the richly figured or mottled parts, we get a balance of parts one with the other. For instance, if we grain a door in imitation of mahogany, and fill up the panels and stiles with nothing but the curl or feather, we overcrowd it and lose all the advantage of contrast. On the other hand, if we put the curl into the panel and do the stiles plain, with but very little mottle, we shall produce, by the force of contrast, a pleasing and altogether better imitation than by the first plan; and so it is with all woods and marbles; in fact, it is the same with design of any kind; a judicious distribution of parts is the great secret and charm of any successful work. In the imitation of marbles, except we keep this point strictly in view, we soon get the work overcrowded and consequently vulgar. Many years ago we knew a grainer who was celebrated for his imitation of mahogany, and in all his work, he introduced here and there some greenish grey tints; the effect of these touches was wonderful, they enriched the colour and gave a character and closeness of imitation, not only deceptive but positively pleasant to look upon, although his colours were nothing near so brilliant as those we see now in use. These small matters may not seem of much importance to the inexperienced, but are nevertheless indispensable to the production of good work; and the student will find it very beneficial and helpful to his progress if he bears them constantly in mind and strives to accomplish what is in reality the only true test of a good workman, namely, to do anything he sets his hand to with all his might, and with the earnest endeavour to do it as well as he possibly can, not sparing time nor application, but work, work, work, until he has attained his end: and it is only by such a course that the end can be successfully attained.

ANSWERS TO CORRESPONDENTS RELATING TO THE PRIZE SCHEME.

We have had several letters of inquiry, and seeking information; from intending competitors, and we have for the benefit of the general bulk of our readers and for all likely competitors answered them all through the columns of the Journal and append them here as their proper place.

E. C.—Our correspondent (an employer) writes us to say that he has never had the opportunity of seeing good work done, his apprenticeship and journeyman days having been spent in a country place, and although he has devoted much time to the practice of graining, sign writing, and decoration in a plain way, he feels that he does not, as a competitor in the Prize Scheme, stand on the same ground as others who have had the advantage of seeing and doing first-class work. He therefore thinks there should be a prize given for the best all-round work exhibited by men in his position. He feels this so strongly, that he is prepared to give the sum of Two Pounds towards a Ten Pound Prize, for the best examples of all-round work exhibited. There is much to be said for our correspondent's view of the case. There are hundreds of sterling workmen who hold situations in small country shops, who have to turn their hand to plumbing, gasfitting, painting, graining, sign writing, and ornamental work, and we have seen work turned out by some of these men which would be highly creditable to men who have had every advantage and opportunity of improving themselves on first-class work. A man whose work extends over so wide a field, is hardly in a position to compete with one who has devoted his time and talents to only one particular branch of the business, because if a man has anything in him, and makes a speciality of one branch as a grainer, decorator, or a sign writer, we may reasonably expect him to turn out superior work in that particular branch, than a man who has to go the round of all the branches in his daily work. The latter is no doubt the most useful and valuable workman, indispensable to country masters in small towns, simply because small masters are not able to find work for men in each branch. It therefore becomes a necessity for him to have about him, a man who can do the ornamental as well the plain work. This being so, we quite think that this class of workmen should be recognised, and their industry and application rewarded. In commencing the publication of the *Journal of Decorative Art*, we had the improvement of this class of workmen more particularly in view. In our long experience of nearly half-a-century, we have come in contact with numbers of workmen in the position of our correspondent, clever, industrious, hard working, ever striving to improve themselves, exhibiting a degree of enthusiasm in the pursuit of the higher branches of the business quite refreshing to see, and as proud as possible of their work. Many of these men scarcely ever leave their native town, or have the opportunity of seeing new and improved systems of working, and yet, for all that, they will do work that no one need be ashamed of. To these men we have no doubt our journal will be beneficial and useful, enabling them to keep well informed of all the newest and best methods of executing work. With regard to the suggestion of a special prize for all-round work, we hardly know what to say. We shall be glad of any communication from our subscribers in reference thereto. Our correspondent also asks if specimens of work will be received for exhibition, but not in competition. We cannot very well see what advantage there would be in that being done if our space will admit, but this is doubtful.

The designs sent in for the Sutherland Prize must be drawn throughout with perfectly black ink, on smooth white paper, the intermediate shades or colours to be represented by lines, cross hatchings or dotted work, no colours or washes must be used.

Mr. T. Lardner, London, inquires whether works which have been before exhibited will be admitted in competition at our next exhibition? We must answer No. Our object in these exhibitions is to show what is being done at the present time—what progress is being made in the decorative arts up to date of the exhibition, and to induce (by substantial money prizes) students and workmen to send in their latest productions, executed specially for this occasion. Our correspondent also asks if polished panels will be admitted? Yes. He also asks whether those works exhibited which do not take either a first or second prize, but would have possibly gained a third prize, had there been any; will they be granted a certificate? Yes. We may say in addition that certificates will be granted to all really meritorious works in all the classes, although they may not be of sufficient merit to obtain a prize.

*

F. STODDART.—Section VII., Class G. (1st) By "black and white" we mean that the drawings are to be executed in Indian Ink on smooth white paper; all shadows must be obtained by lines. (2nd) The wall space can be left plain or decorated at the option of the competitor. (3rd) By smooth white paper we mean "Whatman's Drawing Paper." Though we have answered Mr. Stoddart by post we insert our replies in this issue for the benefit of others who may be in doubt.

J. W. E., BURNLEY.—The sizes of panels for Section IV., Class E, will be not less than 36 by 18, this will apply to the marble panels also.

J. C., BRISTOL.—The above will answer your query.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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CHAPTER XXIV.—DECORATIVE PROCESSES: GILDING ON GLASS.

WHEN the whole is written and squared up as described the superfluous gold may be washed off with damp cotton wool which takes up and retains it, and becomes as a matter of course very valuable cotton indeed, from which the gold may be extracted by burning in a crucible. Gold beaters are always willing to buy this cotton, for in nine cases out of ten however careful we may be in laying on the gold there will be quite as much to wash off the glass as is left on, sometimes much more, so it behoves us to take care of these gold washings, this is especially the case when the letters are small, as it is scarcely possible to gild to the exact form of the letters, and in fact it is not wise to do so except in very large letters, as it is more economical and the gold is brighter if we gild the line of letters solid. Flat ornament, in gold, or silver is, of course, done in the same way as we have described for the letters; the ornament being pricked and pounced, or traced upon the gold. There is a system of forming letters and ornament in gold upon glass which has been used very extensively of late years by those who have been in the secret, called the brushing out system, and it is an admirable method of working, where a great number of small letters have to be put upon one sheet of glass, and have to be repeated on any number of plates, it is chiefly used for show-cards for shop windows, many of which may be seen secured to the plate glass of the window by a transparent cement. They are very sharp and clearly defined, and for purposes of this kind the system is admirable, not only so but a vast number of letters may be done upon a small plate of glass at a cost that could not be approached if they were written with the pencil.

The method of working is as follows: The design, or letters, are set out upon paper of the exact size required, and this is then traced upon a sheet of thin brass, laminated lead, tin foil or other substance of that kind, and the letters are cut out if the glass is gilt solid, to show as a gold ground, with black letters, leaving ties where necessary. When ready this stencil plate is laid upon the gold and the gold is brushed out and off the glass in the spaces or interstices left uncovered by the stencil plate, if we use a stiff stencil brush or a stiff tooth brush and gently rub it over the spaces, and damp it by breathing upon it occasionally the gold may thus be cleared off from every uncovered space leaving sharp clean cut edges equal to anything done by the pencil, all the ties can be afterwards removed by using either a penknife, chisel, or piece of hard wood, the back may now be painted with black Japan, or Brunswick black, and the letter will appear black upon a gold ground.

If it is required to do the letter the opposite way, that is, a gold letter upon a black or coloured ground, then, instead of cutting out the letter from the stencil plate, we cut away the spaces between and inside the letters leaving them secured to the broad spaces between the lines of letters by their tops and bottoms, except round letters, such as O and S, these are cut out all round and ties left to secure them, we now lay the stencil plate upon the lines of gold and brush out as before, when this is done we take a steel straight-edge and chisel and lay it exact upon the top of the letters and take or cut off the gold, and then the same with the bottoms, the letters will thus have perfectly straight tops and bottoms and have their proper shape; ties and any other portions of the letters that may require it, may be cleaned off with the chisel or knife. Of course these two methods may be used upon one plate of glass, black letters on a gold ground and gold letters on a coloured ground. Coarsely etched ornament may also be done in this manner with admirable effect. Many of these glass show plates are done so that they will show well and read as plainly by gaslight as in daylight, this is accomplished by leaving the letters unpainted and the light shining through these uncovered spaces, is distinctly seen and the letters read. Good effects are also got by using coloured varnishes to cover these plain spaces, which look black when looking at them in front but when looked at from the inside the letters or other spaces will look like stained glass, and of course this will be the effect on the outside at night when the gas is burning inside the shop. This coloured varnish will also serve for the backing to the gold if it is solid, which it should be when double gilt. The success of this work will depend in a great measure upon the quality of the stencil plate, which must be sharp and clearly cut in order to produce thorough good work. It will be seen from the above description that there are many advantages in this system over the pencil for a certain class of work, but it hardly pays to cut a stencil for one lettered plate, but when several copies are to be made of the same thing, there can be no question of its superiority.

Solid gold grounds are much used for window plates, fascias, and other purposes, and when the gold is uniform in solidity of surface, and of a bright

clear burnish, the effect cannot be surpassed for brilliancy. There are two methods of painting on gold grounds, namely by first painting the letters or ornament upon the glass and then gilding the ground, but there are numerous objections to this method, although it is much practised. In the first place we are not able to make the edges of the letters or ornaments as sharp and clean cut as they ought to be, and secondly, when we gild the ground we find that there is a kind of oily exudation from the paint which injures the burnish of the gold and thus we have an imperfect work. We have invariably found that it is best in all cases to gild the ground first, solid, and pounce or trace on the ornament or letters, then paint in the ground with the black japan or Brunswick black, leaving the ornament or letters uncovered. When this is dry and hard, we wash off the superfluous gold, and the letters are left with a sharp clean cut edge or outline. We may now proceed to paint in the letters and ornament with black or any other colour required. The outline being secured, no after manipulation can interfere with it, which leaves us at much greater liberty to mix and blend the colours than we otherwise could do. Much care and experience is required in the mixing, laying on, and manipulating the transparent shading and ground colours in this kind of glass painting. Varnish colours are a necessity, inasmuch as there being no suction or granular surface for the paint to hold to, oil colour does not harden properly and is liable to peel off or blister. Richly coloured grounds may be produced by first glazing or coating the glass with a transparent colour in varnish, or the coloured varnishes may be used for this purpose, care being exercised in the doing, so that the varnish will flow evenly, and not more in one place than another, else the ground will be shady when finished. When the varnish or glaze is dry it may be painted over with solid colour of the same or any other tint as the varnish colour. Ultramarine blue, in oil or varnish, burnt sienna, the madder lakes, Victoria lake, and any other rich semi-transparent colours may be used as glazes to enrich ground colours. The ultramarine blue and sienna will require to be used with a sufficient quantity of varnish to keep them transparent, the blue especially having a tendency to dry of a lighter hue than it will appear when first mixed with the varnish. The solid ground colour to paint on the back of the transparent varnish colour may be either used in oil, varnish, or distemper colour, in fact the latter may be used with advantage without the glazing colour; and our experience has proved to us that in all cases when the ground is not exposed to direct contact with wet, or even for outside work where it is properly protected, they will stand the variations of temperature better than either varnish or oil colour grounds. This arises from the fact that distemper will expand and contract, according to the state of the atmosphere, without either cracking or chipping, and this will go on for any length of time (that is to say if the distemper is properly mixed); while varnish colour is but too apt to peel or crack—we are here alluding to solid body colours and not to transparent colours—when exposed to alternate heat and cold, dryness and damp, which causes it to lose its hold upon the glass. If distemper colours are used the best medium for mixing them is in milk. Size or other glutinous mediums are not at all suitable, nor safe, and for all white or light coloured grounds perfect purity of colour is secured by its use. Paris white, dry white lead, emerald green, and all other tints of colour may thus be used; they should be ground in water to the consistency of a stiff paste, then thinned to a working consistency with milk, which has sufficient binding power to fasten the colour to the glass. Common whiting is sometimes used, but is not so suitable as those above named.

In laying on distemper grounds on glass, it is necessary to flow on sufficient colour to form a solid body, as it is not possible to put on more than one coat, therefore, in grounding, the glass should be laid flat, and the colour put on freely with a large camel-hair flat tool. In many cases the colour may be poured upon the glass, and the glass moved about until the colour has covered the whole of the surface to one uniform thickness; by this means we obtain a solid and even ground. On the other hand in using varnish colours it will frequently happen that the ground colour will require two or more coats before it is solid, but this will of course depend upon the nature and amount of body the colour possesses we are using. Colour with a solid opaque body such as Indian red, and all the gradations of chocolate, maroon, and browns, which may be made with Indian red, black, and blue, and burnt umber, and several of the dark bronze greens, will cover and be solid with one coat, but ultramarine blue, emerald green, lake colour, and all pulpy or semi-transparent colours will require two or more coats. Tints of colours although mixed with white lead will very rarely cover with one coat. A bad impression as to the durability of this kind of work is often produced by carelessness in mixing the grounds and inefficient protection afterwards. Often do we see examples when the colour and gold is partly peeled off the glass and the work has to be re-done. As we have before said, gilding on glass will not stand except it be protected from the effects of the atmosphere; therefore we would advise that in all cases where practicable, the work should have another square of glass glazed at the back of the finished work, either ground or obscured glass or plain; we may by this means hermetically seal up the work between the two, and thus protect it effectually from the weather and from injury in cleaning.

(To be continued.)

BOUND VOLUMES—VOLUME II.—As we are now approaching the close of another year we take the opportunity of announcing that covers for binding up Volume II. of the *Journal of Decorative Art*, will be on sale immediately after the 1st of December, and that a limited number of Volume II. will be ready for the 15th of the same month. Volume I. is now long out of print, and, as we anticipate a quick sale for the second volume, those desirous of securing copies should place their orders with the booksellers, or direct to the head office, at an early date. Volume II. of the *Journal of Decorative Art*, price 9s., post free 9s. 6d. Covers only, 2s.

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

(Continued from page 258.)

Chapter XXII.

FIG. 125.—Sable, three Castles, argent. We have here drawn three castles. The one in chief on the dexter side represents the gate towers, the single tower on the sinister side is simply called a tower, and the one in base is called a triple turreted tower. Castles were often used in armorial bearings very naturally so too, as a stout defence of these strongholds was always counted a great and honourable feat.

Fig. 126.—Argent, in chief two Catherine Wheels, azure, and in base a Chaplet of Roses, proper. It is recorded in legendary story that Saint Catherine suffered martyrdom by means of a wheel armed with sharp pieces of iron as shown in the illustration. This is said to be the origin of this bearing, and it is borne as an emblem of suffering and pain endured heroically. The chaplet or garland of roses is a wreath composed of four roses, the intermediate spaces being filled with green leaves. The word chaplet is derived from the old French word *chapel, chapeau*, a covering for the head.

Fig. 127.—Vert, in chief two Chess Rooks, in base a Child's Head, couped below the shoulders, tied round the neck with a snake, proper. This last is part of the arms of the Vaughan family. This singular bearing is said to have had its origin in one of those providential escapes from certain death which now and then do occur to human beings. The legend says that a child was left to sleep in its cot and that a snake of the deadly cobra species crept into the cot and coiled itself round the child's neck. On this being discovered the parents and native servants stood horrified as the slightest movement might cause the reptile to bite. It stretched out its head and hissed at them finally it uncoiled itself from the child's neck and glided away without doing any harm. In commemoration of this miraculous delivery from certain death this bearing was adopted.

Fig. 128.—Or, three Cinque-foils, gules. Intended originally to represent some particular flower.

Fig. 129.—Azure, a Cockatrice, argent, wings endorsed, or. This bearing is considered to have been invented by some herald of the olden time, as being a fabulous bird, having the head and neck of a cock, the wings of a bat, and a forked tail in the likeness of the fang of the serpent, and ancient lore gives out that the creature was hatched from the egg of a cock.

Fig. 130.—Argent, a Cornish Chough, sable. The beak and legs of this bird are in the real bird red, and are generally blazoned gules.

Fig. 131.—Gules, a Crescent, argent. The crescent is the distinguishing mark or emblem of the Mohammedan faith as the Cross is of Christianity, and is borne by many ancient families in commemoration of some valiant deed done against the infidel in the Holy Land and elsewhere. The hundreds of thousands of warriors who went forth to fight the Pagans at the time of the Crusades included members of pretty nearly all the noble families of Europe and this fact will account for the frequent use of this bearing by different families both in England and on the Continent.

Fig. 132.—Or, in chief a Decrescent, in base an Increscent, azure.

Fig. 133.—Vert, three Crescents conjoined, argent. This latter bearing of three crescents has been often used in ecclesiastical decoration as an emblem of the Trinity—three in one.

Fig. 134.—Or, in chief, on the dexter side, a Cross Avellana, on the sinister side a Cross Boutonne, azure, in base a Cross Calvary, sable. The cross avellane derives its name from the fact of its being formed of four husks supposed to be four filbert nuts with the husks, the name of the best species of that nut being called in French *aveline*, from the Latin word *avellana*. The cross boutonne is a plain cross finished at the end of each arm with three semi-circles. Wherever this occurs it is supposed to represent the Trinity. The large cross mounted on three steps is called a Latin Cross and when placed as here shown on three steps is said to represent the three graces of Faith, Hope, and Charity, and is then called the Cross of Calvary. In the days when all Europe was under the sway of the Holy See, a cross of this description was to be met with at the entrance of every village, by the roadside, and in the centre of market places of which many very interesting remains may be yet seen in England. This bearing has been granted to several warriors for feats of arms in Palestine, notably to Sir Sidney Smith. The difference between the Latin type and the Greek is, that in the Roman cross the foot is longer than the upper part or branches, or in other words, the shaft or upright portion is longer than the horizontal bar which crosses it, giving, as it were, the form of a man standing with his arms extended. In the earlier form, on the other hand, the limbs or arms are all equal. The Latin cross resembles the actual cross upon which Christ was crucified, but the form of the Greek cross is ideal. The Latins who were more material in sentiment than the Greeks, preferred the actual form; the Greeks more spiritual idealised the reality. The Latin cross speaks more directly of the Atonement. The Greek is an ideal emblem of Christianity.

Fig. 135.—Sable, three Cross-crosslets, the first plain, the second fitche, the third fitche at the foot, argent.

Fig. 136.—Argent, a Cross Flory, gules. This is a very ancient form of cross in heraldry and as a bearing is adorned with a fleur de lis at the end of each arm.

(To be continued.)

MESSRS. SIMPSON, of St. Martin's Lane, W.C. have on hand a large painting job at the Polytechnic; it is not being done before it was wanted.

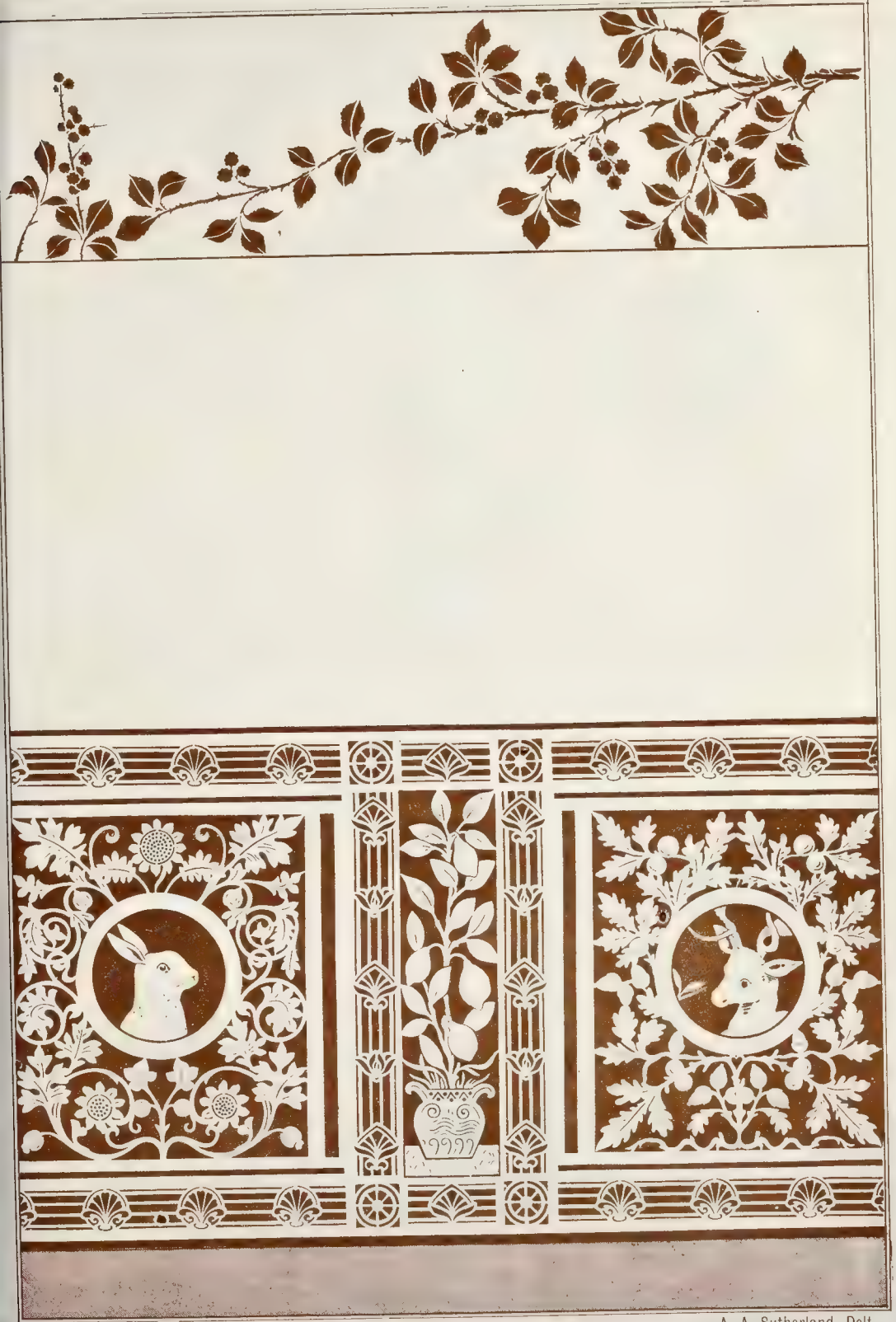


W. G. Sutherland, Invt.

No. 1. **DRAWING ROOM DECORATION**

(executed in Duresco).

Specially Designed for



A. A. Sutherland, Delt.

No. 2. DINING ROOM DECORATION.

(executed in Duresco).

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DIVISIONS OF THE SHIELD.



FIG. 125.—Sable, three Castles, argent.



FIG. 126.—Argent, in chief two Catherine Wheels, azure, and in base a Chaplet of Roses, proper.



FIG. 127.—Vert, in chief two Chess Rooks, in base a Child's Head, couped below the shoulders, tied round the neck with a snake, proper.



FIG. 128.—Or, three Cinquefoils, gules.



FIG. 129.—Azure, a Cockatrice, argent, wings endorsed or.



FIG. 130.—Argent, a Cornish Chough, sable.



FIG. 131.—Gules, a Crescent, argent.



FIG. 132.—Or, in chief a Decrescent, in base an Increscent, azure.



FIG. 133.—Vert, three Crescents conjoined, argent.



FIG. 134.—Or, in chief, on the dexter side, a Cross Avellane, on the sinister a Cross Boutonne, azure, in base a Cross Calvary, sable.



FIG. 135.—Sable, three Cross-crosslets, the first plain, the second fitchè, the third fitchè at the foot, argent.



FIG. 136.—Argent, a Cross Flory, gules.

TO OUR SUBSCRIBERS.



S will be seen from an announcement elsewhere, we shall issue in January, 1883, a double page of twelve three-inch letters, in various styles, raised, shaded, and illuminated in colours and gold, each letter being a practical lesson in sign writing, and the harmonious combination of colours, forming on the whole a most instructive and valuable sheet of letter painting, which every master painter and plumber ought to have framed and hung up in his shop for the instruction and improvement of his apprentices and those in his employ. As will be readily understood, when we consider the great number of colours required to produce a fac-simile of the original drawing, in which each letter is different in colour, in shading, and in the ground on which it is done, and that a very large number of colours must be used to produce the effect required, and that each colour necessitates a separate printing, it will at once be seen that the elaborate process involved must make the work very costly. Now, as our subscribers must feel, we are always anxious to give them full value for the amount of subscription, but there do arise cases (and this is one) when it would not be possible for us, on account of the heavy cost to us, to publish such a sheet at the normal price of our JOURNAL. We shall therefore be under the necessity of charging 1s. for the January number; but we have no hesitation in saying that if these sheets were offered separately, no painter who saw them would hesitate to give 2s. 6d. for one; indeed, after those specially printed for the journal are exhausted our charge will be 1s. 6d. for the plate alone.

The February number will contain a double page of alphabets, raised and shaded, some in perspective; also alphabets of ornamental letters, all practical and readable, adapted for sign writers, glass gilders, &c.; the January number giving examples of these alphabets, their treatment, and colouring, will contain six columns of instructive matter in explanation of both the January and February sheets. Since we made the announcement of the above in our last issue we have had a number of letters expressing approval of our conduct. We are sure when our readers see the sheet their confidence in us will be fully justified.

WE notice, with approval, that the powers that be of the Charterhouse School, are about to introduce the teaching of some one art trade into the curriculum. This is a step in the right direction, and is a sign of the times we live in. Not only will the scholars benefit thereby but the precedent will give confidence for others to travel the same way, and whichever of the art trades is adopted it will receive a stimulus by this additional recognition.

OUR ILLUSTRATIONS.



HE illustrations given with this month's issue show some Screens on exhibition at the Industrial Exhibition, Manchester (Stand 37), executed in Duresco, the washable distemper. They are executed in greens, browns, reds, greys, yellows, fawn, and black, and make very pleasing work, as visitors to the Exhibition may prove. Duresco is a medium which the trade do not avail themselves of to the extent they ought to do, it is very decorative, and will lend itself to almost any treatment, and when properly handled, is as easy to manipulate as oil paint.

No. 1 of our illustrations, represents a Drawing-room Decoration in the "Adams" style—the ground of the frieze cream, wall-space grey, dado a deep pink shade made from damson brown. The frieze ornament done in gold on a grey ground and outlined in brown looks very well indeed, especially with a fawn color wall-space.

No. 2 shows a Decoration for Dining-room—the frieze cream (full tone), decorated with poppies, blackberries, and wheat; the wall-space a full tone of chesnut red (plain), and the dado made from iron grey and stencilled with red, chocolate, and black, the effect is very pleasing.

No. 3 shows a Decoration for Drawing-room in Japanese Ornament.

No. 4 is a purely Ornamental Design for Dining-room: frieze fawn color, wall-space color made from jade green, and the dado made from burnt Oxford ochre, and stencilled with deep red, blue, and black.

No. 5 is a Staircase Design of simple treatment, and No. 6 a simple arrangement for Bedroom Decoration. They are all executed in Duresco, which for stencilling is a pleasanter mixture to work with, than anything we know of.

FINE ART & INDUSTRIAL EXHIBITION, ST. JAMES'S HALL, MANCHESTER.

THE above Exhibition was opened on the 20th of last month by the Earl of Wilton, in the presence of a select if not numerous audience. In his short opening speech the noble earl alluded to the influence which the Manchester Exhibition of '57 had had in fostering a love of art, and to the strides which as a people we have taken in Art Education since that time. Turning to the exhibition which he was officially declaring open, his lordship spoke in terms of unqualified praise of the manner in which it has been promoted and the quality of the exhibits, words of commendation which we can heartily endorse. We have had considerable experience of exhibitions of various sorts, but we can safely say that we have not visited an exhibition of recent years that so well bears out the aims its promoters set out with. We take it that the main idea of the promoters was to get together a display of applied art, more than pictorial; in this they have been eminently successful, as a choicer or more varied collection we have not seen; it is representative in every sense, and no one

who is interested in noting the progress which our art manufactures have made of late years can afford to neglect to visit the Hall. Our notice this month will necessarily be incomplete and sketchy. We shall, however, glance briefly at the principal displays, and in our next issue give more complete details, as the Exhibition is to remain open for two months. This will give all our subscribers a better chance of seeing what has been done. We would say to every reader of this journal, "come and see." Entering the Exhibition from the principal entrance in Oxford-street, the first thing that claims the visitor's attention is Stand No. 2, a room to the right as we enter. This contains a very representative display of the various kinds of work done by Messrs. Cox, Son, and Buckley—stained glass, embroidery, Christmas decorations, painted decorations, carved work, embroidery and vestments, all of the highest quality. Through this room is No. 3 Room, which is occupied by a collection of tiles, showing the class of work done by Messrs. Sowerby and Co., at their works, Gateshead-on-Tyne. The tiles are especially good, and some of the stained glass designs of a very high order of merit. Returning we cross the entrance again to Stand No. 4.—Miller, Little, & Co., Devonshire-street, London: This firm show some fine examples of hand-painted tiles, reproduced from old Italian majolica ware, Moresque in feeling, some new Barbotine pottery, hand-painted tiles of a very fine description, Lewis F. Day's tiles, and some specimens of painting on tapestry. A most interesting exhibit.

The Art, Tile, China, and Glass Painting Company.—We have before in the columns of this journal alluded to the exhibits of this firm, and the display here quite bears out the character they have earned for themselves, the work being of a very high class. Some good Japanese leather papers for Messrs. Hindley and Sons, Oxford-street, are also shown.

Stand No. 6.—W. F. Dixon, Gower-street, London, W. Some good single figure designs for stained glass, some hunting scenes in the Elizabethan character and some allegorical and symbolical subjects of a pronounced individuality.

Room No. 7 is occupied by Messrs. Morris and Company, Oxford-street, London, with designs of wall papers by Mr. Morris, and some stained-glass windows, executed by this firm from the designs of Mr. Burne Jones. Of the papers they all have undoubted merit both in their design and colour, but many of the patterns are not such as to make them acceptable for general purposes. The stained glass shown is from designs by Mr. Burne Jones, and is marked by the peculiarities, not to say faults, that characterise that gentleman's work. Some critics have gone into rhapsodies over these works, but to our judgment we cannot find food for such ecstacy as has been expended on them. The glass is excellent. Some of the colouring is also very fine, but the drawing we do not admire.

Passing into the anteroom of the large hall we are first attracted by the exhibit of the Decorative Needlework Society. This exhibit is unique in point of sterling excellence of workmanship; and unlike a great deal of work of this class it appears to be under the direction of some capable head who guides the skilful hands into right channels. A fault that can be laid to the door of much of our ladies' work is, not that it is deficient in executive merit, but that the labour is in many instances misapplied. The work shown on the stand is what it name implies—decorative, and is designed for a purpose and a place.

Stand 13.—Messrs. Charles Rowley and Co.: A very choice collection of picture frames, gilt with that excellence of workmanship for which Messrs. Rowley & Co. are justly famed. The designs claim attention for their extreme beauty.

Stand No. 12 is occupied by specimens from the Windsor Royal Tapestry Works. These specimens prove to a demonstration that tapestry weaving is not to be reckoned amongst the lost arts. The colouring and the finish which is found on the walls here are nothing less than marvellous, and equal, if they do not surpass, the delicacy of works from the brush. A large number of the works shown are orders executed for Mr. Vanderbilt's new mansion on the other side of the Atlantic, whither they will shortly be transported.

Stand 17.—Salviati, Burke & Co. exhibit a choice selection of their world-renowned specialities. The exquisite beauty of some of Dr. Salviati's productions are now familiar to most of the *habitués* of our popular exhibitions, but to those who are not acquainted with them so closely, we commend the goods displayed on this stand to their careful attention.

Stand 16.—Dr. Dresser is to the fore in the exhibits of the Linthorpe Pottery Co., some very beautiful colourings and forms being found amongst their now popular ware.

In this room also are to be found some of Mr. Wm. Morris's hand-made carpets. Mr. Morris is so palpably the decorator of the palace and the "grand ville" that his productions are not subject to the same criticism as those of ordinary folk. The patterns are palatial in their scale, and whilst their colouring is very beautiful and soft, the magnitude of the designs exclude them from ordinary work. The same may be said of many of Messrs. Morris & Co.'s exhibits in the Large Hall. The bulk of the carpet designs, whilst very beautiful, are not only large but in many instances eccentric.

On Stand 25 Messrs. Thos. Brown & Son, Manchester, exhibit some excellent specimens of eccleciastical vestments, altar cloths, banners, &c., all worth inspection and careful study by those interested in this special branch of decorative art.

Stand 3A.—Messrs. Sowerby, Ellison & Co., of Gateshead, have a choice show of their very beautiful glass, which, in the elegance of its designs and purity and brilliancy of its tints, runs very closely the older and more widely known Venetian.

Messrs. Mintons & Co., at Stand 27, show some good representative work. We don't perceive any falling off in the quality of Messrs. Minton & Co.'s productions, but, on the contrary, a marked determination to keep the advanced position which they have won for themselves. A Majolica vase, supported by Cupids, occupies the post of honour in the stand, and is worthily flanked by two noble Japanese vases of exquisite taste and great value, supported by a varied and choice assortment of other goods.

Stand 30.—Messrs. W. B. Simpson & Sons', is to the decorator one of the most interesting displays in the whole exhibition. Messrs. Simpson cover so much ground with their work, that there is a fine field for the display of taste. Tiles, enamelled iron, wall papers, and general decorations are to be found here, but the main effort of the firm has been directed to the display of their tiles, and here they are to be seen to great advantage, hardly a tile but what will repay the most attentive study, either for its colour or its form, and in most cases for both qualities. The figure tiles are especially good. Four plaques—Ariadne, Eurydice, Bacchus, and Orpheus are very cleverly drawn, as are also some figures representative of the Virtues—Prudence, Industry, Humanity, Hospitality, Love, and Thrift. Some good mosaic work is also to be seen here, and some decorations for churches are equally deserving of study. We shall hark back again to this stall in our next issue.

Among the exhibitors of Wall Decorations, Messrs. Frederick Walton and Co., Limited, of Sunbury-on-Thames (Stand 32), show their now well-known "Lincrusta Walton." The stand comprises a dining-room and drawing-room, divided by a passage representing a hall and staircase. The drawing-room is decorated with the "Adams" dado, filling, border, and frieze, the ceiling being covered with a handsome new pattern (No. 260), surrounded by a border (No. 181) of new design. The panels of the door are filled with Lincrusta of the "Adams" filling and dado, to be *en suite*, and the architrave of the door frame is ornamented with one of the numerous Lincrusta borders. The mantel and over-mantel (made by Messrs. Foster and Cooper, Nottingham), are also ornamented with Lincrusta panels from the "Adams" dado. The decorations are simple—the dado is picked out in two colours and gold; the filling is painted one plain colour; and the frieze and ceiling are picked out in two colours. In the dining-room is shown a very handsome and effective new filling of a broad *leaf* design (No. 261), above the Gothic dado. A new *fruit* border (180) surmounts the filling, and above is a handsome cove frieze with squirrels, birds, and foliage, hand-painted on a bronze ground on the plain crêpe. The ceiling is panelled with a neat diaper design, painted in one colour, the mouldings being dark oak. The decorations of the dining-room wall-coverings are (excepting the hand-painted cove) of the simplest and most inexpensive character, and yet extremely effective. The dado is stained dark oak, wiped off and varnished. The leaf filling is painted a dark umber (?), and the leaves are wiped off, leaving the background dark, and giving a wonderfully good effect of relief, and light and shade. We know of no other material which could be treated in such a simple manner to give so good a result. The door panels, frame, dado rail, mantel, and over-mantel, are all ornamented with the Lincrusta. The hall and stair-walls have the Japanese dado, with two patterns shown in the fillings, and a frieze

of a diaper pattern; the whole being treated very simply. Altogether the intention has been to show what can be done with the material without expensive and elaborate decoration, and, in our opinion, this has been successfully carried out. As regards the material itself, we believe it has a great future. A material which is so durable, so little liable to show damage, which can be washed as often as necessary, which is damp-proof, water-proof, and capable of an infinite variety of decoration, must establish a firm position for itself with consumers. The present prices, too, will compare favourably with many high-class wall-coverings, while the material possesses many advantages over others. To the artistic decorator it should recommend itself as a field for the exercise of his taste and decorative talent, not alone in regard to wall coverings, but in the general decoration and ornamentation of woodwork. Mr. Sams and Mr. Fardon, the representatives of Messrs. Walton and Co., who are in attendance, will be pleased to see any subscribers to this Journal at the stand, and give them every information possible.

Messrs. Wm. Woollams & Co.'s exhibit, gives further evidence, if that were needed, that they don't mean to be left behind in the race for precedency. Their display is a most creditable one, and includes specimens of dados, friezes, borders, and fillings, all of a high order of merit in design and pleasing in colour. They show a magnificent crimson flock design, which by gaslight almost warms the outer hall where it is placed.

No. 29 is a stand of exhibits which all marblers and grainers should see. It is occupied by Messrs. Farmer and Brindley, of Westminster Bridge Road, and contains some splendid specimens of various kinds of marbles and stones.

Messrs. Jeffreys, Stand 33, share with Messrs. Woollams the honour of being the only wall paper manufacturers who exhibit. Messrs. Jeffrey's display is not very extensive, but what is shown is very good. Two ceiling papers, Nos. 1 and 3, designed by Mr. A. H. Macmurdo and A. F. Brophy respectively, are very clever, as is also No. 7 paper, in lacquer and gold, by Mr. F. Vincent Hart. No. 9 is a design by Walter Crane, designated the "Arbor Vitæ," which is distinguished for as fine a bit of "high falutin" as it has been our lot to read for some time past. We give it for the benefit of our readers, and when we say that the design is a succession of tortuous curves, with a hungry looking man and woman, and attenuated lizards and creeping things crawling about it, it will be admitted that the artist in his description has quite reached the utterly too too too standard.

"(9) Real Leather, stamped in relief. Designed by Walter Crane. Of the "Abor vitæ" design for stamped paper or leather.

"'The design of this arabesque, as its name implies, is intended to suggest the redundant stem of life, which, in the exuberance of nature, brings forth flowers and fruits after their different kinds, reptile, bird, beast, fish, and human or semi-human forms spring in rhythmical alternation from its curving branches, and, turning, seek their good therefrom, as the children of mother earth turn again to her for sustenance. It is emblematic, too, of the long drama of evolution and the constant struggle for existence throughout nature, the acts whereof and shifting scenes and incidents, in all their convolutions and complexities, build up the strange eventful pattern of being around us.'—Walter Crane."

Messrs. Thos. Heighway and Son, on Stand 58, make a good display of decorative panels by Mr. Thomas; wall papers, picture mouldings, Japanese wall papers, Tynecastle tapestry, &c., &c.

(To be continued.)

We understand that the whole of that large building, St. James's Hall, Manchester, now the scene of the Industrial Exhibition, has been painted with Randall's Permanent White Paint, and that this pigment has given the greatest satisfaction to the owner, Mr. Reilly.

The generosity of Mr. Henry Connolly, of Hampstead Road, N., in lending gas standards for the Banquet to the Horse Guards at the Albany Barracks, was ill requited by the weather of the 24th ult. Mr. Connolly estimates that the loss to him will be over £500.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 263.)

Chapter XXIV.—Marbles and Marbling.

Italian Pink.



HAVING now laid in and softened or blended the work to our satisfaction we let it stand until it is dry, and then proceed to scumble and glaze it. In doing this we first scumble with thin white and feather in the same manner as we do for sienna marble, softening it as we go on. We then paint some of the patches over with solid white or light pink, some of them in full, some in part, and others in half. By doing this on the parts of patches which abut upon the division line of the next block, we define the line more clearly without making a continuous line with the black lead. Some of the patches we glaze with a darker shade of colour made with a little vermilion, Indian red, and white. By putting in solid colours we make the semi-transparent ones more transparent and add depth to them. In and amongst the mass of broken bits which lie between the larger patches will be found a good many small bits of a much darker colour than other parts of the marble, these must now be carefully put in; they are of a reddish brown colour which may be made from Indian red with a little burnt umber and white; these give a still more stony look to the imitation. We now proceed to put in those veins or markings we have before spoken of as being in that wavy form that the markings on cornelian have. To do this we use an ordinary camel-hair flat tool, and dip it into the thin vermilion colour, having a little Indian red added to it for one colour, ultramarine blue and vermilion for another, and the dark ochre colour for another. With the tool charged with any of these colours we put in these veins across some of the patches here and there in a wavy or curled form, opening the camel hair with an open-toothed comb before using, but not as regularly as we open the overgrainer in woodwork. By this means we may make an exact representation of these marks, and add very materially to the richness and beauty of the marble. Care must be taken not to put in too many of these marks, and those we do put in should be carefully done; some of them will pass over two or more separate patches where they are close together, the two or three pieces having been joined together at some time or other. We may now put in some solid white patches, and streaks across some of the patches and in and amongst the veins, surrounding them with a light bluish grey wash and softening them while wet as directed in imitating Sienna marble. These, if properly done, add very materially to the success of the imitation. In varnishing Italian pink marble the best copal, French oil, or the best carriage

varnish should be used. Its colour is so pure and delicate in parts that any ordinary or high-coloured varnish will turn it yellow, and thus destroy its purity; so in all cases where it is used on staircase walls this consideration should always have its due weight. We have occasionally used a small hoghair overgrainer for putting in the cornelian veins—one about an inch wide is best. This may be opened by drawing it edgeways across the fingers or a piece of wood; this will open it in a more irregular form than the comb, and we thus obtain narrow and wide veins with one stroke—occasionally these will be improved by slightly softening with the badger-hair tool.

Breche Violette.

Breche Violette is a marble of the same species as the Italian Pink, but from the peculiarity of the colour of its principal veins and markings has received the name Breche Violette. It is also a very much rarer kind, principally found in the quarries of the Carrara mountains in Italy; but these quarries have become exhausted or nearly so, and the marble is in consequence very costly. The character of this marble is as near as possible that of Italian pink; the colour of the mass being of a creamy and greyish white, with soft veins, and transparent or sparry portions having great depth, and greyish violet veins, sometimes inclining to red and others to a bluish grey, crossed by reddish yellow and pure yellow veins, running into grey, red, violet light and dark. It is a very beautiful marble either for using in large or small masses.

The crayons required for this marble are as follows:—

No. 1.—Indian red and ultramarine blue, to form a dark violet or bluish purple. Of this colour of crayon we should have two or three different degrees of strength, which may be obtained by simply using less of the colouring matter when making them and more of the pipeclay. By having them of different degrees of strength we are able to put in light and dark veins all having a gray or violet hue.

No. 2.—Crayon. The reddish yellow one as used for Italian pink.

No. 3.—Black. This must be used very sparingly and only in the darkest parts of the veins to give variety and force when required.

The ground colour must be white, flatted and stippled as before, and the working oil colour should be mixed with pure white stained slightly with vermilion and a little ultramarine blue. For the darker parts we shall require a dull grey made from ultramarine blue, Indian red, and a little umber or Vandyke added. We should mix two or three shades of this colour for putting in upon the broken patches of stone so as to give variety. Another colour required for putting upon the smaller patches and occasionally upon the larger ones, is made from yellow ochre, white, with a little raw umber added. We should also require a dark reddish grey for painting in some small bits amongst the larger ones. All these colours will be mixed as before described for Sienna and Italian pink marbles.

The rubbing in and breaking up of the large slabs or blocks of this marble may be done in exactly the same manner as described for Italian pink. Its characteristic features are the same or nearly so, consequently the instructions given for Italian pink will equally apply to breche violette so far as the marking, softening, and general working is concerned; they differ only in the general and local colouring, the one having a general tone of pure pinky white, and the other a greyish white and violet tone pervading the whole of its veins and patches. There is more transparent blueish white in the breche violette than in the Italian pink, and these will be got in the same manner as described in Sienna marble. Very much of the stony effects of this marble may be got in the scumbling with the thin white and feather. By crossing and recrossing some of the patches and dipping the feather occasionally into a thicker white, then softening with the badger, we produce a great variety of tints and also get accidental effects of broad and narrow strips of solid and transparent white which adds very materially to the effect of the whole when varnished and finished.

There is still another variety of the breche marbles which although it is not suitable for painting in large masses, on account of its great depth of colour, yet is admirably suited for using upon columns, pilasters, chimneypieces, and for inlaying in combination with other marbles. The character of this species is the same as the other varieties, but is of a darker and sadder tone of colour.

The crayons to be used for imitating this variety of the marble are—(1) black, (2) dark purple, (3) deep reddish brown made with Indian red and burnt umber, (4) the dark yellow crayon before described. The ground colour of this may be white, same as for the others; and we may here observe that the flatted white ground is in all cases the best for all crayon marbles which are worked wet, because when we put a darker colour upon it, which darker colour is mixed in oil and without much body, the white ground not only purifies the oil colour, but shows to a certain extent through the darker colour, and gives it a semi-transparency which cannot be otherwise produced.

The rubbing-in colour we use for this dark variety of breche is made from white, Indian red, and black,—forming a light shade of murrey colour. We shall also require two or three darker tints of murrey colour, the darkest approaching a brown tone. These may be all made from the same colour as the rubbing-in colour. One of the lightest of these should have a little ochre mixed with it. This latter will only be occasionally used in parts. It is not only a colour forming part and parcel of the marble, but it serves to enrich the other colours and produce harmony. In working, we cut up the blocks into those angular broken pieces or patches, as described in Italian pink, with smaller broken pieces running in between. In rubbing in a column or pilaster, we rub in the whole with the lightest tint of murrey colour, then use the crayons—the lightest ones on the upper parts, and the black, dark purple, and dark brown on the lower parts; the darkest at the base. We now paint in the patches with the various shades of filling-in colour, still keeping the darkest colour on the lower parts. The lighter crayons may be used on the upper parts

or the lightest parts of the work. Many of these patches are darker at one part than another, so that in laying in the patches with the dark murrey colour, we should always bear this in mind, as it adds very much to the beauty and effect of the imitation. In this variety of the breche marbles the whole of the cutting-up and veins may be put in with the crayon, and softened and finished in the same manner as the breche violette, by scumbling and putting in solid whites.

In putting the darkest colours on the base and lower parts of a column or pilaster, we give an appearance of weight and stability. If we were to reverse them and put all the dark parts at the top, the effect would be to give it an appearance of top heaviness, very offensive to the eye. Just the same effect is produced by placing colour of any description on a wall; the darkest should always be at the bottom, gradually getting lighter as they rise, the lightest colour being at the extreme top. This effect we also see in nature—the colour of the earth, the grass, the trees and foliage get lighter as we ascend, until they are lost in the light of the atmosphere. This is an unalterable law, applicable under all circumstances. We therefore, both from principle and experience, advise this plan to be followed.

In finishing both the breche violette as well as the dark breche, just described, we may darken and enrich the colours by glazing over some of the patches with a thin mixture of Indian red and purple lake, being careful not to do too much. A thin wash of burnt sienna and purple lake here and there will have a good effect on parts of the darker marble. If, after the scumbling is done, we take some of either of the two latter colours and paint in part of a patch, leaving a band or streak of the white in between the dark glazing, we may produce a very stony effect. In both these marbles the cornelian veins, as described in the Italian pink, are also (to a lesser degree) a part of both the breche violet and the dark breche.

(To be continued.)

TRADE INTELLIGENCE.

St. Luke's Church, Cheetham Hill, Manchester, has just been painted and decorated with Griffith's Patent White, with the most satisfactory results to all concerned.

In Preparation.—For many years past there has been a desire expressed in the house-painting trade for some sheets of Letters and Alphabets which should be a standard of reference for the trade, most of the books of Alphabets now before the public being of such a character as to render them valueless for practical purposes. Twenty-seven years ago the editor of this journal published an illustrated work in colours on Sign Writing, at a Guinea per copy; these were soon bought up and out of print. From that time up to the present there has been no serious attempt to cover the same ground. During the last two years we have had numerous letters from our subscribers requesting us to issue some sheets of Alphabets. We have hitherto been unable to comply with their wishes, as the ground was occupied with other matter. Now, however, the time has come when we can, in the proper course of our articles, devote some attention to this important subject. With the January number, therefore, we shall issue a Double Page of Large Letters (twelve in all), raised and shaded; executed in the very best style of lithographic art on chromo paper, shewing various styles of letters suitable for the house painter, sign writer and gilder, and decorator. This will be followed, in the February number, with another double sheet, containing Eight Different Alphabets, raised and shaded; some drawn in perspective. This sheet will also be in tints, but of a less elaborate character than the January one. The very great cost this will entail upon us will compel us to charge 1/- for the January part, and as we shall print only a comparatively limited number, it is important that orders should be placed with the booksellers, or sent direct to the head office at an early date. We are certain, from the character of the coloured illustrations we have already given, that the trade will have full confidence in the value of the plates which we now announce.

ANSWERS TO CORRESPONDENTS.

H. S. Arthur, Oxford.—Our correspondent writes, suggesting our giving a series of articles on scene painting, stage perspective, and property making. We cannot see our way to enter on this path at present. We are fully alive to the importance of the subject, and have no doubt but that a vast amount of useful and instructive information might be given on the subject, and at some future time we may take up the matter. Our space for many months yet, will be occupied with the subjects we have in hand, which it is important we should carry through and finish with as few breaks as possible, and therefore we shall be compelled to defer commenting upon any other lengthy subject, however important. We are very much obliged to our correspondent for his suggestion, and for the evident interest he takes in the success of our journal.

A. C. Gravesend.—A little honey or glycerine put into the beer when graining in distemper will hold the graining colour damp longer than without. This is what is put to "moist" colours to keep them moist. It is only in graining panels of any considerable size that any advantage is gained by the use of these. We have found it useful when graining the top panels of a door to keep the bottom half of the door well wet with water, the moist air thus produced helps to keep the panel wet a longer time than otherwise. It is only in very hot weather we experience this difficulty, and the skilful workman is never at a loss to overcome it. But there are no helps of this kind equal to a thorough practical experience in the working, which as a natural consequence gives facility of execution, and decision as to what we intend to do. Once this is acquired all other difficulties vanish. In our article on the imitation of maple we pointed out the fact that, if the work does get dry before we can finish it to our satisfaction, we may work on it again by wetting it with clean water and a mottler, using a damp wash leather to wipe out and touch up any defective parts.

"Wolverhampton."—We would suggest to you sending up to Mr. Wilmersdorffer for specimens of his Wood Tapestry, mentioned in our last issue, page 264; if the patterns are not suitable, or if you require something simpler and cheaper, you can find all particulars for doing it yourself in our description of imitation inlaying contained in number 15 of this year's issue of *The Journal of Decorative Art*, to which we would refer you.

J.F.G., Southport.—If you will indicate which panels you want, we will see if we can send them you.

For Exchange.—Twenty-one Plates of Owen Jones's "One Thousand and One Initial Letters," will be given in exchange for Vol. 1. of the *Journal of Decorative Art*.—Apply to A. C., 27, Parrock Street, Gravesend.

F. C., Uxbridge.—If you have not already Owen Jones's "Grammar of Ornament," we would suggest that book to you as the most useful you could have for your purpose. There is a £3 3s. edition, and by writing to Mr. T. B. Batsford, Holborn, and using our name, he would give you every information concerning it.

C. Stephens, Gloucester.—You will see by an announcement we make elsewhere that we issue covers for binding, and also our charge for same.





W. Sutherland, Invt. and Delt.

CORNERS, SUITABLE FOR CEILING AND PANEL DECORATION.

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] DECEMBER. [PRICE 7D.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

TO OUR READERS.

WITH this number we complete Vol. II of the *Journal of Decorative Art*, and at such a time we may with propriety address a few words to all who are interested in the success of "our" Journal.

To our subscribers, one and all, we would tender our thanks for the support they have given us, and the interest they have always manifested in this Journal. We want the painting trade to feel that the *Journal of Decorative Art* is *their* Journal, and that whatever affects their interests will always have our attention.

Our columns are open to record any work accomplished by our subscribers, and we shall be pleased at all times to receive and chronicle such information. Any grievances of the Trade can be ventilated in the pages of our Journal, and all proposals for their removal will find a sympathetic advocacy from our pen. To the many eminent firms who have employed our advertisement columns we offer our best thanks; our advertisements are admitted to be unique in the history of Trade Journalism, and the high character of the manufacturing firms who have used and continue to employ our columns, is alike gratifying to us and beneficial to our readers. In another part of this issue we indicate the ground we hope to traverse in the new year, and the programme we there set forth is, we hope such, as to command the approval of our wide circle of subscribers and readers. We are making special arrangements to double our circulation during the coming year, so that there shall not be a good painter's shop in the country into which our Journal will not find its way. We intend accomplishing this by legitimately selling our paper, and not by free distribution, which is often only an indication that a journal will not sell.

In this extension we hope to compass a triple advantage; first, to our subscribers; secondly, to our advertisers; and thirdly, to ourselves.

In closing our columns for another year, we reiterate our thanks to all our friends, and wish them the best of greetings for the coming Christmas Season, and a prosperous New Year in 1883.

VOL. II.—No. 24.

THE "JOURNAL OF DECORATIVE ART"

SECOND ANNUAL

Prize Scheme, Exhibition, and Competition.

APRIL, 1883.

WE desire to draw the attention of intending competitors to the following announcements.

All applications for space forms must be made to the head office, 1, St. James's Square, Manchester, before the 1st of January, 1883.

We have had some letters from correspondents, who seem to think that the cost of providing the materials in the Competition is such as to debar many actual working decorators and grainers from entering. Where such cases exist, we would urge upon employers to meet the men, by providing the materials for the men to decorate. We think that we may claim the support of the employers in this matter, as our endeavours are all directed to raising the standard of the trade.

ANSWERS TO CORRESPONDENTS RELATING TO THE PRIZE SCHEME.

MARPLE, NOTTINGHAM.—The Bristol Prize. The width of this will be 1ft. 9in. only; the depth of the filling and the height of the dado and the frieze, will be optional with the designer. The width is the only imperative size.

S. & Co., GLASGOW.—The Crowden and Garrod Prize, Section IV., and the Yorkshire Prize, Section III. Panels painted on iron will be admitted.

J. D., GLASGOW.—Section I., Class A. The door panels are meant to be on wood, not an imitation door on the canvas.

E. S. CHATTERIS asks, "Is the exhibit in each class to be the *bona fide* work of the exhibitor, and his alone?" Yes. We shall be glad, as we indicate above, to receive work in competition from any firm, providing the name of the actual workman is sent with it, and, of course, he would be the recipient of the prize, providing it was successful. In the case of the graining and marbling competition each set must be the work of one man. Condition VII. does *not* exclude the use of gold.

G. S. MARLOW, BUCKS.—We shall be glad to set apart a special space for panels sent in by apprentices or improvers under twenty-one years of age, and award special certificates for this class

SECTION I., CLASS A.—When we say that this work has to be executed in "Charlton White," we don't, as some seem to think, mean that the ground work has to be white, but that the pigment used must be that made by Messrs. J. B. Orr & Co.

*Every Day Art. By Lewis F. Day.** We have received this book from the publisher, and regret that our space this month will not permit us to give anything like a fair notice. We may say, however, that whilst not agreeing with all that Mr. Day asserts, the book contains much that is interesting and profitable to the amateur and the professional decorator alike, and is well worth the small sum at which it is offered to the public. Mr. Day has a happy way of expressing himself in an antithetical form, and in his preface he expresses the hope that the book will commend itself to his readers none the less that instead of having to say something about his art, he has something to say. We shall in our next issue give a detailed criticism.

* Published by B. T. Batsford, of Holborn. Price 7s. 6d.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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CHAPTER XXV.—DECORATIVE PROCESSES: GILDING ON GLASS.

GROUND glass makes an admirable back-ground for gold and colours, and does not obstruct the light; which fact is a great advantage in some situations, as it is often the case that we want an inscription on the glass without interfering with our light. Beautiful effects in illumination, in the mediæval style, may be got by putting the gold letters, such as capitals, &c. upon one sheet of plain glass and writing the black and red letters upon another sheet of ground or obscured glass, the coloured letters on the rough side of the glass, and putting the two together. The colour of the ground glass being of a pearly white hue, receives a light soft shadow when the two glasses are put together, this is caused by the letters and ornaments on the plain glass, there being a slight distance between the two, owing to the unequal surface of the glasses, which prevents them coming in close contact with each other. By putting the two glasses together thus, we get a very effective contrast between the dead colour and the bright burnish of the gold, giving the latter a brilliancy not to be obtained by painting the colours on the plain glass, which gives them a glossiness that is objectionable, whilst its absence adds to the beauty of the work. We have advised that when practicable two glasses should be used for this kind of work in order to protect and preserve it from injury. In doing this, when the two glasses are put into a window frame, it is best to paint a margin of about three quarters of an inch all round both glasses, this serves to hide any putty that may get between them in glazing, this may of course be done in the ordinary way, taking care that they are well bedded in and "back puttied," this will prevent any damp air or moisture getting in, and thus preserve them. But, if the glasses are to be put into an ordinary frame, the edges of the two glasses when put together may be secured by covering them with strips of calico, saturated with patent knotting (shellac dissolved in wood naphtha). The glasses being placed as close together as they can be got, the strips are laid on the edges and lapped over on each side, and when the knotting gets dry and hard, another coat of the shellac may be brushed over them which will hermetically seal them from injury by damp, air, or water. When this work is done upon large squares of plate glass, and it is not practicable to cover them with another glass as above described, and there is no ground colour put upon the glass, we have found it to be the best plan when the gilding and letters are finished, to give them one or two coats of the best copal varnish; taking the varnish about one eighth of an inch outside the letters proper, on to the clear glass. This must be allowed to get thoroughly hard before being disturbed by cleaning, &c., it will then protect the letters or ornaments for a much longer period than if it were not varnished. We may frequently see in the metropolis and many of the large provincial towns, the fascia board on the shop windows having the names of the proprietors done upon slips of plate glass, and beautifully painted to imitate projecting wood letters, many of them being admirable examples of manipulative skill in the management of the graduating of light and shade, some of them are done upon gold grounds, others on white grounds with gold letters and coloured blocks. There are three methods by which this raising and shading may be done. It is of course a simple matter to paint these lights and shadows upon a sign board, that is, if the painter thoroughly understands the principles of light and shade, but it is a very different matter to do it upon glass, simply because the painting of the lights and shades are reversed. On a sign board if we make a mistake it can be remedied by painting over again, and moreover, we can see exactly what we are doing, and the effect of every stroke. On glass, however, we have to put in the gradations of light and shade so as to produce their effect on the opposite side to that on which we are working, which of course increases the difficulty and the labour.

The first method of working after the gold letters are finished, is to paint in the light and dark shades with solid colours, just as we would upon a sign board, looking to the other side to see that we are producing the effect intended. But before commencing to paint them in, we should place the drawing of the letters with the lines of the shaded blocks made out, upon the front side of the glass as a guide. When the colours are laid in with the lights and shades in their proper places, we may blend them one into the other on all the curves or round letters by stippling with the ends of a small badger hair softener, or any other tool that will effect the purpose. Any portions of the colour which may have got beyond the correct line of the blocks may be scraped off when dry with a chisel or knife. In the second method, we finish the letters and then paint in a solid background, and the black back shadows, leaving the necessary space for the raised blocks to be painted in afterwards; when the ground is dry, we paint in the various shades and gradations of tint with transparent colours, using those in tubes for this purpose as they are purer and finer ground than the ordinary colours, and may be used in oil by adding a little sugar of lead to dry them, as many of them are but poor driers. Now as the limits of the raised blocks are defined by the previous painting in of the ground, we need not be particular as to going beyond the line. In putting these shades in, we graduate them where required and blend them with the badger, and if we want a bright light upon any part of the letter we wipe off the colour on that part leaving the clear glass. When this first shading is dry, we again paint over the darkest shadows with the same colour as before, we thus increase the

depth of the gradations of shade, and define the angles of the letters, as well as enrich the colours. When the whole of this is dry, we paint over the lights and shadows with a solid body of white or a light tint of the same colour they have been shaded with, this must be a solid body colour of a lighter tint than the transparent shading, and this shading should have the appearance of having been put upon the solid paint, and if properly done, will appear richer and softer than when done on the first plan. Our third method of working is by using the transparent shading without painting in the ground colour first, we work the lights and shadows as before described, without being very particular about going beyond the line of the block on those parts which require blending such as rounds and curves. When the shading is done and dry, we use a solid body colour of a quick hard drying nature, and paint over the transparent colour up to the limits or shapes of the round blocks, and when this is thoroughly dry, we may wipe or scrape off any of the transparent colour which may have gone beyond the line of the body colour. The last method is the one we have used in our own practice, and is the best, as better and cleaner work can be done by it. As a matter of course it will be understood that practice and experience will be required in order to execute this work to the best advantage, but if the student will follow our instructions faithfully, he will soon be able to make good work in this style.

As we have before said, prior to attempting any important work we would reccommend the inexperienced workman to practise upon the raising and shading single letters on small pieces of glass; by doing so, he may soon acquire sufficient skill to justify him in undertaking more important work. With good examples of letters before him to copy, such as we shall issue in January, he will only require to obtain the necessary manipulative skill in execution, as our letter sheets will supply him with every variety of raised and shaded letters, best adapted for glass and sign writing. It will often be necessary to etch or shade figures of animals, ornaments, coats of arms, &c., in gold and silver leaf. This work will require that the student should have a knowledge of drawing and the principles of light and shade produced by lines. This can only be acquired by a regular course of study, although most if not all the work done in this manner are copies of engravings of the subjects so represented, and many skilled workmen who cannot draw them can make very fair copies. The effect to be gained is to make out and define by lines, straight, curved, and "cross-hatching" the various features, detail and shading of human figures, animals, ornaments, coats of arms, &c., &c., in black upon a gold or silver ground, or the figures themselves, may be gold, etched with black lines. This is sometimes done by painting on the lines with black, and gilding upon them afterwards, but we do not get that softness of effect, or multiplicity of fine lines the work requires by this method, we prefer therefore to work by removing the gold from the glass by scraping, or etching the lines. When the gold or silver leaf has been put upon the glass as before described, we trace or pounce the design to be etched upon it with white or other coloured pounce, this should be done before the finishing size is put upon the back of the gold, but after it has been operated upon with the hot water as previously stated, the reason for this is that when the back of the gold is finished with size it becomes exceedingly hard, and in consequence much more difficult to cut or scrape out the lines than when it is left without the back sizing, but of course it must be sized after the etching is done. When the design is clearly traced upon the gold, we use an etching point, which may be either the edge of a penknife blade, a piece of hard wood, such as box, lancewood, baywood, or any other close-grained hard wood. With this we scrape off a good bold outline to define and mark out the various points of the design, when this is done we may put in the small detail of each part, then proceed with the shading, when required, it is better in every respect to mark the outlines distinctly in first, as we are then not so liable to make mistakes in the shading. This shading is the most difficult part of the work, as the principal portion must be done by single lines in various subtle curves running parallel to each other in some parts, and in others by lines crossing each other called "cross-hatching" in the manner of an engraving; this will require much practice before the student can do it effectively, but if he is copying an engraving he should carefully study the manner in which the lines run to produce these various effects, and he will thus obtain the necessary knowledge of them. Experience and practice will alone enable him to do it well, but when well done very beautiful effects may be obtained. We have often used strips of whalebone for scraping off the gold in shading, and found them of great service. We procure a piece of close grained whalebone, about a sixteenth of an inch thick, and from an eighth to a quarter of an inch wide, and cut it square at the end, and then cut notches or indentations out of it, with this homely tool we have done the shading quickly and with good effect. When the gold or silver is very hard to remove from the glass with the point, breathing upon it gently will make it easier to mark the lines. One, two, or three lines may be cut out at one stroke, by cutting notches in the square end of a piece of hard wood—the notches being of the width of the lines required—and then drawing it along upon the gold with sufficient pressure and using a straight edge to keep the tool straight. When the etching is done the design may be painted with Japan black which gives black lines in gold on the front side. Vegetable black in varnish may be used, but the gold should have a coat of the finishing size before being blacked, when this is dry the superflous gold may be washed off the glass, leaving it ready for the application of colour where required. If it is a coat of arms we have been doing, we put in the transparent shades suitable for the various colours that may afterwards be put on, as we see them in coloured armorial bearings, when these are dry, we may paint in the various solid colours.

(To be continued.)

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SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

(Continued from page 271.)

Chapter XXIII.

FIG. 137.—Azure, a Cross Raguled, or.

Fig. 138.—Argent, a Cross Moline, vert.

Fig. 139.—Sable, in chief a Cross Patée, in base a Cross Fitchy. The word patée is derived from the French *epate*, spread, extended in width, in the shape of a paw or claw, which the French call *patte; un ne epate*, a flat nose, a pugnose.

These etymologic elucidations may appear at first trifling, but when we consider that most of the words employed in heraldry are foreign to the English ear, it will be seen that they can rarely be remembered unless they are connected with some interesting fact, and therefore more likely to make an impression on the mind. Avelane, moline, frette, are unmeaning sounds to those who do not understand any language but their own.

Fig. 140.—Or, a Cross Patonee, azure.

Fig. 141.—Vert, a Cross Plain, argent. This bearing is the nearest to the ordinary, being a cross couped or severed from the sides of the shield.

Fig. 142.—Argent, a Cross Potent, sable. The ends of this cross represent the potent or crutch.

Fig. 143.—Vert, a Chalice, a Cup, and a Covered Cup, or. These charges are very nearly alike in form, and very frequently occur in ancient heraldry. A romantic story is told in connection with this bearing. It is said a French knight, of low degree, loved and was beloved by the daughter of one of the proudest of the French nobility, who forbade his daughter entertaining such a passion. The knight went to the wars in the Holy Land and was there slain in battle. Before his death he requested a comrade to send his heart in a cup to the lady of his love. The lady received the cup, and made a vow never to marry. In consequence of her obstinancy, her cruel father caused her to be imprisoned in a horrible dungeon with the heart of her lover beside her, and literally starved her to death. It is said that this circumstance gave rise to this bearing. The chalice in modern times is often borne by the dignitaries of the church.

Fig. 144.—Or, a Dolphin Naiant, proper.

Fig. 145.—Gules, a Dolphin Hauriant, argent. The term hauriant means to draw in air. The dolphin, whale, and all fish of that class cannot remain under water indefinitely, but are obliged to come up to the surface to breathe or take in (haurire) a sufficient store of air to enable them to exist under water for a certain time. The dolphin, as portrayed in heraldry, is, of course, a somewhat different creature to the natural fish. It has been used from the earliest times as an heraldic figure; in fact, there is no animal, fish, or bird which has been so universally used for ornamental and decorative purposes as the dolphin. The flexibility of its body and its gambols when swimming have suggested its use for all kinds of decorative painting, sculpture, gold and silver work, handles for vases, urns, earthenware vessels, and all kinds of decorative works. To the designer the dolphin is invaluable, it serves as a motive and commencement for a variety of ornamental designs. The old masters used them yoked to shell chariots, to draw Venus over the waves, and for hundreds of designs, the mere list of which would occupy more space than we have at our command here. We need hardly wonder therefore at the extensive use that has been made of this fish in heraldic blazon.

Fig. 146.—Argent, a Dragon, vert. Before described.

Fig. 147.—Vert, an Eagle Close, Or. The eagle has been considered a most important bearing in heraldry, being the king of birds, and the only bird, it is said, that can stare at the blazing sun without winking. In all times it has been considered an emblem of power and majesty. In heathen mythology, the eagle occupies an important place as the messenger of Jove. In the old world and the new, east or west, and in all civilised and savage countries, tribute has been paid to the lordly character of the monarch of the feathered tribe. He has been a fruitful theme for the poet and painter. He is carved upon thrones, and his large body and outstretched wings are made to support the lectern or reading desk in Christian churches in our own day. He is adopted as an emblem of St. John the Evangelist, because, as the eagle flies the highest and looks at the sun, so this holy apostle gazed especially at the great glory of our blessed Lord's divinity. Russia, Austria, and America have made him their national emblems, and no doubt these facts will account for its universal use in heraldic blazon. A bird in heraldry is styled *close* when it is represented with wings lying close to its body.

Fig. 148.—Argent, an Eagle Displayed, azure.

Fig. 149.—Azure, an Eagle's Head, erased, argent.

Fig. 150.—Or, an Eagle Displayed with two heads, sable; or it may be defined as,—Or, a Spread Eagle with two heads, sable. The ancient Romans adopted the eagle as a symbol of bravery—the ensign of their victorious legions, the conquerors and terror of the world of that day. When the empire was divided the head of the eagle was split, and appeared as a two-headed eagle, borne to this day by the German nation.

Fig. 151.—Purpure, an Eagle's Leg, argent. The ancient heralds, who gave a consistent analogy to the symbolical bearing of arms, made every part of the eagle's positions, attitude, and body emblematical. Strength and clearness of sight, rapidity and strength of wing, soaring to celestial heights, courage, care for its young, &c., were all pressed into the service of the herald, in order to symbolise the merit or achievements of those who bore his likeness in whole or part on their shields.

(To be continued.)

DIVISIONS OF THE SHIELD.



FIG. 137.—Azure, a Cross Raguled, or.



FIG. 138.—Argent, a Cross Moline, vert



FIG. 139.—Sable, in chief a Cross Patée, in base a Cross Fitchy.



FIG. 140.—Or, a Cross Patonce, azure



FIG. 141.—Vert, a Cross Plain, argent.



FIG. 142.—Argent, a Cross Potent, sable.



FIG. 143.—Vert, a Chalice, a Cup, and a Covered Cup, or.



FIG. 144.—Or, a Dolphin Naiant, proper.



FIG. 145.—Gules, a Dolphin Hauriant, argent.



FIG. 146.—Argent, a Dragon, vert.



FIG. 147.—Vert, an Eagle Close, or.



FIG. 148.—Argent, an Eagle Displayed, azure.



FIG. 149.—Azure, an Eagle's Head, erased, argent.



FIG. 150.—Or, an Eagle Displayed with two heads, sable.



FIG. 151.—Purpure, an Eagle's Leg, argent.

OUR ILLUSTRATIONS.

IN the present number our illustrations consist of six original designs for corner ornaments with breaks or centre ornaments to match. The corners and centres have been drawn specially for ceiling and wall panel decoration of a workable size, namely, ten inches by ten inches, the centres, to piece on to the corners connected by the lines shown. These have been photo-lithographed down to the size on the sheet given, and in this size will be useful for gilding on glass, or embossing, and for other purposes. Stencil patterns ready for cutting, can be supplied at the original sizes, as above, at six shillings the full set of corners and centres; or single corner and centre to match on stout cartridge paper, two shillings.

We feel assured that this arrangement will suit many of our subscribers, as they will thus ensure appropriate ornaments of a good character in the proper form for application to the work they are designed for.

The centre ornaments Nos. 1, 3, and 5, may be used as continuous borders by arranging them in working so that the end of the stem at one end is placed under the terminal leaf at the other end, and thus be utilised for both purposes; these three would also make centre ornaments for panels by placing two copies together, and adding a centre spray of leaves or ornament. Nos. 2, 4, and 6 may also be used as continuous borders. These ornaments will be found very useful for moderate sized ceilings, as well as for corners to wall panels. They may also be used in their reduced form for executing in gold on glass, or for embossing.

Persons who have not had very much practice in stencil cutting, should refer to our instructions contained in the articles on stencils and stencilling, appearing in this Journal for January, February, and March, 1882, where every information may be got in reference to stencil cutting, which only requires care and practice to execute in a proper manner. There are two or three points we may with advantage note here. The first being the caution to always cut with the point of the knife keeping it almost upright, by doing so there will be less danger of cutting through the ties, and we are enabled to see better what we are doing and to stop at any given point. A narrow-bladed knife is best, because it does not hide by its breadth the fine lines of the ornament, and also, because we can better cut the corners, or circular parts with a narrow blade than with a broad one. When much cutting has to be done, it is better to procure or make a special knife handle, having a ferrule at the end, and a place in it to fix a new blade as one gets worn out; this they quickly do in consequence of requiring to be rubbed or sharpened upon the oil stone so continuously; the stencils having to be cut upon glass or other hard substance, soon blunts the point, therefore it is necessary to have the oil stone at hand to renew it.

ART NOTES.

THE visitor to the Manchester Industrial Exhibition, on entering the large hall, is immediately confronted with a very beautiful room, decorated and furnished by a gentleman well-known in local circles. This room is, perhaps, the most unique display in the whole building, and it is one on which we may profitably bestow more than a passing notice in the tale it tells us. The room is described as a "sitting-room, decorated and furnished at a moderate cost," which latter fact is further emphasised by an inscription over one side the mantel, "Beauty is not incompatible with economy." The room comprises not only the usual articles of furniture which are regarded as necessary, but all the little details down to the very minutiæ of a room; every thing is provided and put into its proper place. Passing by for the moment the question of cost (the cheapness of which by the way is after all only a comparative term), we wish to say a word or two as to the principle involved. These are days of a widely diffused education, not using the word in its narrow and clerical sense, but in its broadest and most comprehensive meaning. The cheapness and facility of transit from place to place, and from country to country, the ease with which the best and most representative specimens of Art work can be seen and studied, the distribution through the press, both technical and general, of sound views on the subject of applied Art, and the great improvement in the products of our workshops and factories, renders it inexcusable for any man or woman of good position to be destitute of the knowledge or judgment required to furnish a room tastefully.

IT is the undoubted function of the Architect or Decorator to impress on the room by line and tone what shall be its ultimate character; but when he has done this, it is his duty to step on one side and make way for another to fill in the detail. This we conceive to be the exclusive prerogative of the occupier, and he or she who surrenders this privilege is parting with one of the most delightful and powerful educational agencies, and turning their house into a show-room, and not into a home. All that individuality which should impart to each home a character peculiarly its own is gone; but, you may say, we obtain an individuality, and that of a very high class, by putting the whole work into the hands of the skilled furniture decorator. This is true, in a degree, but only to a certain extent. This very individuality which we boast of as having procured, is apt to become stereotyped and mechanical by repetition, and thus the only claim it has for countenance and support is gone. But what a confession is made in this surrendering of one's duty and office into the hands of a stranger; what impotence of judgment and taste does it proclaim; and how it writes in legible characters inside our dwellings the fact, that whatever else we possess, and whatever else be our attainments, we have not the judgment to adorn our own home, or, having it, we do not possess the courage to formulate it.

LET it be understood that we do not take exception to the particular room to which we alluded at the commencement of these notes (that, as we then said, and now reiterate, has much that is beautiful in it to recommend it to our notice and study), but to the habit which seems to be becoming more common year by year, of placing the *complete* decorating and furnishing into the hands of some outsider, and leaving him to complete the room down to the tiniest bit of Satsuma or Dresden ware. Our contention is, that in so doing, while undoubtedly better and more artistic effects may be gained, they are obtained at the price of a complete subordination of the idiosyncracies of the owner of the house, without any resultant compensation in an educational sense. We may escape the incongruity which sometimes comes from home efforts, but the beauty and harmony obtained is lifeless, because not expressing our individual thoughts and feeling. We conceive that the true function of the decorator is to put in the framework of the room, and leave to the occupant the carrying out of the details, and that whatever goes beyond this is a usurpation of another's office and work.

TECHNICAL education in Manchester has reached another stage nearer its instalment as an operative agency. The Executive Committee, which was appointed about two months





W. Sutherland, Invt. and Delt.

CENTRES OR "BREAKS" FOR CEILING AND PANEL DECORATION.

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ago, has now prepared its report and submitted it to the General Committee, elected in the month of August last, so that we are within measurable distance of seeing the Institution at work. It will be remembered that the scheme is, as at present contemplated, only tentative, so that at the end of three years the Committee may be in a position to reconsider the whole question and the expediency of either continuing the work or abandoning it. We have no doubt of the ultimate issue, and the promoters of the Institution deserve and should command the hearty support of the whole community.

FINE ART & INDUSTRIAL EXHIBITION, ST. JAMES'S HALL, MANCHESTER.

Stand No. 10 in the outer hall is an exhibit of silks and velvets—lampas broché, damas, damas des Indes, velours de gene, brocatelles, &c., of the periods of Louis XIV., XV., and XVI. chiefly, with a few specialities in the Adams and other English styles, by Messrs. Tassinari and Chatel, Lyons (Agents, Thomson and Co., 28, Southampton Street, Strand, W.C. Some of these, especially the damasks and velvets, are superb examples of this kind of work

Near to this stand is that of Messrs. Burke and Co., who show a good assortment of their Mosaics for floor and mural decoration. Messrs. Burke's reputation is European, and no one who looks carefully at the specimens on view can be surprised at this. The beautiful softness of tone and brilliancy of colour, combined with a permanency that is practically unending, places this form of decoration in the front rank for all works of a national character, or to which it is desired to give an element of permanency.

There is no department of art industry which gives more healthy signs of a real vitality than that of ornamental ironwork; whilst cast ironwork is finding its proper outlet in legitimate channels, the demand that there is for hand-worked metal, is both encouraging and indicative of a higher standard of judgment. The St. Pancras Ironworks Company (Stand 15) have an excellent show of wrought-iron goods, both simple and ornate, the principal of which we enumerate: A four-branched suspending candelabrum of wrought iron, hand-forged, with foliated and enriched details; two wrought-iron fire screens; a semicircular portcullis, or head to gateway, hand-forged, with foliated and enriched scroll work; a wrought-iron lamp bracket, for fixing to wall; a wrought-iron gate, about four feet wide, five feet high; a wrought-iron grill or screen, about eight feet long, four feet high, hand-forged; a wrought-iron hand-forged finial, 4ft. 6in. high, with foliated ornamentation; sundry specimens of hand-forged wrought-iron scroll work and foliage.

We would again direct attention to the Decorative Art Needlework Society's productions.

Opposite the entrance to the large hall, is Messrs. Gillow and Co.'s display, which can at once be conceded the premier position for stately magnificence. In the drawing-room or boudoir, which is, by the way, the same as shown at the Paris Exhibition in '78, and used by the Princess of Wales as her own room, there are some very beautiful Italian Arabesques painted on silk, which should not be missed. The walls are hung with blue and decorated satins. The furniture is in satinwood, ornamented with delicate scrolls and *armorini* in monotones. The doors are inlaid with various woods and medallions of carved *bois sur bois* cameos. (The gilt arm chair covered in Windsor tapestry is lent by H.R.H. the Duke of Albany.) The right hand section represents a dining-room in the Italian style. The sideboard is in solid walnut, with carved pilasters and panels of the *cinque cento* period, and is a splendid example of the work of this period. The walls are covered with Venetian Tapestry. On one side hangs a panel of Royal Windsor Tapestry, representing "a view of Windsor Castle," executed from a cartoon by J. O'Connor. The general character of the morning-room is "Flemish renaissance." The Chimney-piece is in carved walnut with old Persian tiles and wrought-iron stove. The walls are hung with Windsor Tapestry The bedroom is in the "Queen Anne" style. The furniture is in rosewood, with silver mountings. The walls are hung with silk and wool tapestry, the bed hangings being of the same material. The workmanship is of that solid class which we may describe as good "English;" not only does it impress us as being beautiful, but as all good work should, with being well made.

Another art manufacture which has made wonderful steps in its revival is that of ornamental glass work. The Venice and Murano Glass and Mosaic Company, St. James's Street, London (Stand 22) are honourably known in connection with this renaissance, and their work is of admitted value in point of artistic designs, and beautiful colourings. On their stand they show examples of modern Muranese blown glass or soffiati, chiefly modelled from ancient specimens preserved in the various European museums; enamelled glass; chandeliers and candelabra; and some splendid specimens of Venetian glass mosaics for mural decoration.

Near to this is Stand No. 26, a room shown by Mr. G. F. Armitage, Altrincham. The room calls for a few remarks, as by some mistake it has been set forth as an example of "cheap or economical decoration." Now only by comparison with very ornate work can it be considered in any way as cheap—£250 is the sum we have heard stated as the amount the room represents, but we should be disposed to say that £400 is nearer the figure. While conceding at the outset that there is much that is admirable in the room, both in the colouring and in the detail of the furniture, it is amenable to the criticism that it is overdone, and suggests more the curiosity shop than the home; and whilst the effect on the spectator is subduing, it is not the subjection of repose, but oppression—it overweights one, and makes one feel depressed. There is too much completeness, and an absence of spontaneity, that gives the impression that the effect was carefully planned and settled by a scale drawing, and we feel, that some little incongruity would be a relief. Turning to the detail of the room, the ceiling is panelled out with mouldings, and the panels filled in with Lewis F. Day's daisy pattern. The walls are divided into four spaces. The dado is of corduroy, with a stencil pattern on, which yields a very excellent result indeed. The wall space is filled with a paper of a golden brownish hue, of a somewhat fussy strained design; then comes a projecting shelf for china, and a frieze of a copper-gold Japanese paper, against which the china on the shelf stands. This is surmounted with a frieze quite 24 inches deep. The ground of the frieze is a Japanese gold paper, on which is painted a late autumn scene, consisting of the bare top branches of trees, amongst and over which, a numberless army of rooks are flying. Behind the trees fierce red clouds are rolling in angry mood. This is, as a decoration, the weakest spot of the room, the extent of it, and the pronounced forms both of the birds and trees, dominate the whole place and cannot be evaded. A much smaller surface of this treatment would have been better. The general tone of the room is well kept, both in the wall decorations and the accessories; and there is much that can be learned here by the careful student.

Stand No. 27A.—A fine oak chimneypiece with Doulton tiles to the splays, and some of Tinworth's modelled plaques in the centre of the lintel. Radiating firestoves, &c.

Stand No. 37B.—A collection of bronzes and cabinets lent by Sir Humphrey de Trafford.

44A is another stand occupied by the productions of Messrs. Doulton and Co. The goods here shown are those produced at the Lambeth Potteries. Messrs. Doulton contrive to give such a variety of treatment to their productions, that the eye travels over their exhibits with ever-increasing pleasure. The harmonious colours, the varied forms, and the individuality of each article impart a charm to all they do.

Stand No. 44B.—Doulton & Co., Tunisian and Choncoid Ware, manufactured at the Burslem Works. Of these we can only speak in general terms of admiration. The variety of form and detail and the excellence of the work can only be appreciated by being seen.

Messrs. Jones and Willis, of Birmingham and London, Stand 45, make a very good display of the high-class metal work for which they have now established a reputation. A feature of their stand is a magnificent altar, carved in oak and walnut, after the design of the late G. E. Street, R.A., in the date of the style 15th century Gothic, very full in detail. In front of this is an altar frontal, worked in coloured silks on a creamy white ribbed silk ground, the design for which was from the same talented pencil, and was shown in the 1862 Exhibition. The style is florid conventional Gothic, boldly drawn and richly coloured, it is well worth careful study.

Some wrought iron gates, which obtained the gold medal at Paris in 1878, show to what perfection of skill in design and workmanship, this branch of art industry has been brought.

Messrs. Proctor and Co., of Oxford Street, London, Stands 46A and 46B, have a fine and varied display of Indian goods of every description which we cannot attempt to enumerate, but which should not be overlooked by the visitor to the Exhibition who is interested in art work. Does any one wish to see the artistic skill and unwearied patience of our fellow subjects in that distant land, he has a good representative collection here, and can find much food for reflection and thought. Indian pottery, carved furniture, chased brass and copper vases and salvers, Indian woollen and cotton carpets and rugs, Indian cotton, grass cloth, silk and wool curtains and fabrics, Indian silver and gold plate and jewelry, Jeypore and Delhi enamel plate and jewelry, make up a thoroughly interesting and representative collection.

Stand No. 48.—Messrs. Dutton and Powers. A limited but very choice selection of goods made by this firm. Gaseliers, candelabra, lamps, gas brackets, fenders, fire brasses, door and cabinet furniture, in the Queen Anne and early English styles, for domestic use. Ecclesiastical furniture, embracing lecterns, altar furniture, sacramental vessels, gas fittings, &c., &c., in the early English and florid Gothic styles. Messrs. D. and P. in their work aim at purity of line rather than showy detail. and some of their exhibits in wrought iron are very beautiful indeed. We must not omit to draw attention to a very graceful stand for fire irons.

Messrs. Kendal, Milne, and Co.'s stand is one of the most important in the Exhibition. The space is broken up so as to obtain the maximum of wall space, and, in addition, to show a room completely furnished. The main feature of the wall decoration is the Tynecastle tapestry, a material that possesses properties quite unique. Inside the octagonal room the wall space is covered with the aforesaid tapestry in a tone of old gold, with an olive plush dado, the frieze being filled in with a highly coloured design of fruit and flowers—this is, in our opinion, the weakest part in the decoration. The general tone of the whole scheme is very admirable and harmonious, and instructive in point of colour. The hangings and accessories are well arranged with a view to the ensemble. Of the furniture, we cannot speak in words of too high praise. The whole of the decorations have been carried out under the direction of Mr. Scott Morton, the inventor of the Tynecastle tapestry. The outside walls of the octagonal room are hung with different patterns of the tapestry.

Messrs. Shuffrey and Co.'s Stand, No. 40, is one that well repays careful attention, the characteristics of the display are good taste, hand in hand with inexpensive materials. The exhibit consists of mantels, tiles, fireplaces, paperhangings, and door furniture, the whole designed by Mr. Shuffrey himself—the recommendation of the wall-papers lies in the fact that they are unobtrusive in design and well coloured, and form very effective backgrounds. The lines of the woodwork are very graceful in detail and very proportionate, announcing in no uncertain sound that Mr. Shuffrey possesses the artistic faculty in no small degree.

Messrs. Elliott, Alston, and Olney's exhibit, of ironwork of every description for domestic purposes, is a very excellent display; some fine chandeliers, hall lamps, chimneypieces, and furniture to same, being shown. A novelty is a chimneypiece and fireplace moulded from the Lincrusta Walton "Adams" Decoration. The effect is excellent. We believe that these casts were taken from pieces of the actual material itself. Some admirable specimens of door furniture of every description, handles, finger plates, letter-box plates, &c., &c., and some good designs in lamps, go to make up one of the most interesting collections in the place.

Messrs. Hart, Son, Peard, and Co. (Stand No. 54) have a collection quite worthy of the great reputation this firm has made for itself.

In these days of science and scientific appliances, we must not omit noticing a very simple but effective system of ventilation, the invention of Mr. Papier, Stand No. 36. The internal arrangements of the ventilator are such that all the advantages of the revolving screw are secured, without its mechanical action. No matter whether the current come up or down, the effect is to carry the air in one given direction. The Manchester agent is Mr. E. Wood, of 4, St. Ann's Square.

Passing from the large hall to the picture galleries, there is not much to cause a prolonged stay. Some clever sketches are shown by Mr. Raffles Davidson, being the originals of his well-known "Rambling Sketches."

There are also some marble panels, and some specimens of graining which are of a very mediocre description. Mr. Lever shows some doors and panels, decorated by Mr. Richard Glazier, of Rochdale. The panels of the doors are spoilt by the bands across them, which have no motive for being there, they break up the panel and spoil the continuity of the decoratious, which in many respects are good. Mr. Glazier has another example of his skill, on oak, very much better than the doors.

Some good specimens of lace are to be seen, as also some very fair examples of wood carving. Some ingenious gentleman has shown how time can be wasted and misapplied by devoting a considerable amount of that precious commodity to the production of various emblems, &c., made of human hair. When will people learn that time and talent so applied are worse than wasted? They are positively, in an educational sense, harmful.

On the whole the promoters have been very successful in compassing their ends, though we cannot but regret that the decorators of the district have not availed themselves of the opportunity to a greater extent. On this point we shall have more to say anon.

ASBESTOS FIRE-PROOF PAINT.

To the many other valuable uses that this remarkable mineral has been applied, that of being manufactured into a fire-proof paint, is the latest and not the least important. As a serious contribution (and shall we say solution?) to the question, which for years has been the subject of much thought and anxiety on the part of all interested in buildings, and the building trades, it is to be welcomed, and as far as is practicable, utilised. Hardly a year passes but to the lists of other casualties and calamities which the exigencies of our civilisation seem to render more probable, day by day, is to be added the fearful tale of victims which fire claims as its own. With the recollection of the Nice and Vienna disasters fresh in our memories, and with the fearful calamity which might have filled America with mourning, had the fire at Abbey's Park Theatre last month occurred but a few hours later, a great responsibility and culpability attaches to those who neglect to use the materials which an enlightened science places at their disposal to combat this most deadly and insidious foe. The United Asbestos Company manufacture and supply a paint which possesses the remarkable quality of resisting fire. It is no unusual experience for a company or an individual to startle the world by announcing the discovery of some remarkable secret or invention, which is to revolutionise society, but which, when brought to the test of practical experience, falls wofully short of what its promoters assert for it. This is not the case with the paint under consideration. It has been subjected to the most crucial tests, in the presence of witnesses whose testimony is unimpeachable, and in each and every case it has triumphantly vindicated its claim to resist the action of fire. We have tested it ourselves on a small scale, but sufficiently large to demonstrate the absolute truth of what the proprietors claim for it, and its fire-resisting qualities.

One of the most recent of the many public experiments which the Company have made took place on the 9th of August last, upon a vacant space of ground in the Northumberland Avenue. Two rough models of theatres, having a stage proscenium, &c., were erected. One building was coated with the paint in common use, the other with Asbestos paint. Inflammable materials having been placed alike in both buildings they were ignited, and the result was that while the one building was quickly consumed, the Asbestos painted theatre model entirely resisted the fire and remained perfectly intact.

A second trial was then made in this building with the Asbestos curtain, and with a like successful result. While the fire from the miniature stage leaped and played about the curtain it did not penetrate to the auditorium. Eureka may be used as the motto of the United Asbestos Company. By this invention managers have safety from fire, and protection of property; while, what is of inestimable value, the public have confidence, and all cause of panic is thoroughly averted. Not the least recommendation to the trade will be the fact that this new paint is no dearer than ordinary paints, and is

applied with the facility and ease of those in regular use. The United Asbestos Company have taken over the business of Mr. Chas. Mountford, Clement Street, Birmingham, the inventor and patentee, and are now prepared to execute orders to any extent. The fire-proof paints can be supplied in many colours, a list of which, with full particulars of prices, can be obtained on application to the above address. We think there is an opening for business for any enterprising man who is the first in his district to introduce this paint to the notice of large millowners, the proprietors of works, shops, &c., into all of which, when applied, it brings an element and an assurance of safety which has long been sought after, but until the introduction of this paint has never been found. The inventor and the proprietors have our hearty wishes for the success already assured) which they so thoroughly deserve.

CHRISTMAS CARDS, 1882.

Art is multifarious in its manifestations, and presents itself to us in many aspects ; we live in times when each day almost brings with it some new development, or some new application of old methods and processes to new purposes. Of late years there has been no growth more startling in its magnitude or more far-reaching in its results, than the expansion of the trade which concerns itself with gift cards, whether they be those for Christmas time, New Year, St. Valentine's Day, or Easter ; and along with this increased demand for greater variety and numbers, is the ever-increasing fastidiousness of the purchasing public. There has been a dual action at work. The manufacturer has in the first instance produced a higher and more artistic article to offer the public, and these have been as "bread cast upon the waters," which has silently formed an opinion and cultivated a taste, that now will not content itself with what used to satisfy it, but demands better and more artistic work year by year. This is but one portion of the great wave of art education that has swept over this country with ever-increasing force during the last thirty years ; it is the counterpart of a great deal of work, to which we have alluded from time to time in these columns, and it is a coadjutor which we eagerly welcome into our ranks. The dissemination of beautiful forms, no matter how or what the means employed (if proper ones), is to be encouraged and furthered to the full extent of our powers ; as they all tend to one end and point to one goal. We have penned these remarks as the result of a careful examination of Messrs. Hildesheimer and Faulkner's cards for the forthcoming Christmas season. It will be in the recollection of our readers that last year Messrs. Hildesheimer and Faulkner instituted a prize competition which has no parallel for the amount of money prizes offered or the artistic results which followed ; £5000 was the amount offered, divided into prizes and purchases. J. E. Millais, Esq., R.A., Marcus Stone, Esq., A.R.A., and G. A. Storey, Esq., A.R.A., were the gentlemen appointed to adjudicate, and the exhibition took place in the Water Colour Society's rooms. The result of the offer was that 5000 designs were sent in ; of this number 3000 were ruled out of court, and 2000 selected for final adjudication on. Messrs. Hildesheimer and Faulkner now publish the designs which then gained prizes, and the collection is one of the most interesting and most artistic that has ever been issued. The extent of this firm's operations, may be gathered from the fact that last year they printed and sold over five million cards of one description or another. The space at our command forbids us giving detailed description, and we must content ourselves with a brief reference to the numbers of the cards which commend themselves most to our notice. And first, there comes No. 800, a set of four-flower designs, comprising Christmas roses, azaleas, &c., in glass vases, and with rich ornamental back ground, after paintings by Mr. Muckley. As a flower painter, Mr. Muckley almost stands alone, and his name attached to any work of art is guarantee that of its class, it is as good as skill and taste can make it. No. 796 (a set of four) are from the same talented brush—"Marguerites" and roses. Whilst No. 794, another set of four flower designs by the same artist, are equally beautiful. Every one of these cards are valuable as studies of flower painting, and are the cheapest outlay of the kind we could suggest. They are all very faithfully reproduced. A set of four designs—No. 730, "Landscapes of the Seasons," by A. Glendenning, junr., £100 prize ; 787, "Pug and Puss," by H. H. Couldery, a £75 prize ; 797, "Lily and Iris," by W. G. Sanders are very cleverly done and very decorative. Miss Linnie Watts' cards are all very clever groupings and pleasing in colour. A word of commendation is also due to the flower designs of Mrs. M. E. Duffield, Nos. 734, 639, 648, and 670, all of which are marked by great tenderness of expression. The late W. Rathjeans has also two designs, No. 755. There are also some humorous ones among the collection, which we heartily commend to the notice of our readers.

Messrs. Mansell and Co.'s Exhibition of Christmas cards this year is in no way behind last season's show. A good representative collection has been got together of the various leading makers, and the visitor is thus enabled to compare the productions of different houses, and award the crown of olive accordingly. On first entering the room we are met by Messrs. Prang's American cards. These cards have a distinct character of their own, away from their English and German rivals. Some of the prize designs in the recent competition instituted by Messrs. Prang, are to be found on the walls. Next we come to the cards of Mr. S. Hildesheimer ; in this collection also are some prize designs, the result of a competition organised by Mr. Hildesheimer, and held in the Dudley Gallery. On the end wall of the room are Mr. Mansell's own productions, a collection marked by several distinct features. A speciality of Mr. Mansell's own cards, is seaweed mounted on gelatine. Of course the charm of these greatly depends on the arrangement, and in the specimens on the wall great taste and artistic judgment is displayed. Photographs of flowers from nature form another conspicuous feature and a very beautiful one too. Of the firm's own goods, etchings, most of them very pretty and pleasing, call for a word of praise ; whilst some chromos of marine views are most cleverly done, giving all the appearance and touch of water colours. Mr. W. Weekes has designed a set of cards, illustrating some of Æsop's fables, and some nursery rhymes, which are clever in the extreme. The same may be said of Miss Trowbridge's productions, and the designs of Mr. Walter Seymour. On the whole Mr. Mansell's own wares compare favourably with other manufacturers. They possess the merit of being out of the ordinary groove, and appealing to a more cultivated class of judgment. A small but choice selection of the cards of Messrs. Lowell's, of America, give evidence that in these matters our cousins are in no wise behind the mother country. The firm of Marcus Ward and Co., are well represented and give no sign of failing powers. Some of their cards with Scripture texts on, are exceedingly beautiful, as is also their Shakespeare card ; whilst "The Tale of a Tail," points a melancholy moral. Mr. J. Y. Schipper's collection is also a very good one. Mr. Raphael Tuck, who initiated the prize design competitions, has now renounced that method of procuring designs as ineffective ; and, instead, has commissioned a number of R.A.'s to paint him designs—which are issued under the title of "The Academy Portfolio" ; these are of varying merit, but altogether Mr. Tuck's collection is good. Messrs. De La Rue's cards this year are, as ever, distinguished by great elegance of design and delicacy of colour. A collection of black and white cards, drawn and published by Mr. Alfred Gray and Mr. W. G. Baxter, are noticeable for their quaintness ; and those of Mr. Baxter, by a great deal of broad humour, which should make them warm favourites with the public.

We have also received a selection from Mr. S. Hildesheimer, of London and Manchester. These are of a very high order of merit. Passing to a detailed criticism of them, we must give great praise to a portfolio of six small etchings, "Views of the Thames," out of which it would be difficult to select any one of pre-eminent merit, they are all so very good. They should command a wide sale. No. 30 are a set of four cards correctly described as a novelty. They consist of four very clever designs of the elements, earth, air, fire, and water, well drawn and coloured, in addition the figures and portions of the ornament are embossed. Nos. 21 and 621 are likewise novelties, and very beautiful ones too, they are four designs of plates and basins beautifully decorated—the imitations are very clever. No. 49 is a design of butterflies and flowers cleverly grouped, and No. 1296 is, if anything, more beautiful still. No. 75, "Kittens at Play," is sure to be a favourite with the little folks. No. 97 is one of the most beautiful cards which the season will produce, and is exquisitely printed. No. 128 is a clever flower design printed on satin. No. 1813

is a series of photographs from Nature, by Payne Jennings, very well done and nicely mounted. No. 99 is a beautiful card; whilst No. 47 will be a popular one. No. 15, as a specimen of lithographic art, is perfect, though we should take exception to the design. Nos. 51, 12, 56, 103, 110, 67, 377, 63, 53, 46, 45, 44, and 48 are all in the front rank, both for artistic merit in design and the excellence of workmanship with which they are produced, and will, doubtless, command a large sale. Many of the best designs were sent in for the competition which this firm instituted, and for which they offered over £2,000 in prizes.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 276.)

CHAPTER XXV.—MARBLES AND MARBLING.

WE have been specially requested to describe our method of imitating Rouge Roi, or royal red marble next, and although it will be a departure from the course we had marked out, we think it may be useful to those of our subscribers who intend competing for the prizes in that class at our forthcoming exhibition, and therefore we give it here.

Rouge Roi is principally obtained in France, hence its name, and is a red marble having several varieties, namely, Rouge fleuri and St. Remy blue; these, while being of the same species or kind of marble, differ in their colour to a very considerable degree, and are obtained from different quarries, being varied to some extent by the differing conditions of their chemical formation and surroundings. Rouge Roi proper is a rich red-brown marble. Its prevailing colour is a bright red-brown, varying in tone from a dark rich brown to a light fawn-coloured red, which seems to float upon a mass of bluish grey and white, and appears on the surface of this bluish white in large and small irregular patches. Some parts of this under-colour are solid opaque white, but the greater part is semi-transparent, having the appearance of water, in which these whites, greys, reds, and browns are floating about—or rather have floated about at one time when the whole mass has been either in a state of solution or fusion, for it is quite evident from its construction that this has been its state at one time or other.

Some specimens of this marble are exceedingly beautiful, and do not suffer much in comparison with the red Jaspers, many portions of it being filled with feather-shaped patches of transparent white, spotted in regular forms with brilliant and minute spots of crimson.

The ordinary method practised by many marblers is one which we ourselves at first used to practise, but after a thorough study of the marble, we ultimately adopted a method of our own, founded upon the natural structure of the marble; and this, we opine, is the true method of acquiring a thorough knowledge of our subject, so as to enable us to imitate it in the best manner. The first method, referred to as being practised by many marblers, is to paint in a ground-work of the prevailing colour of the marble—viz., the dark-red brown—then to put in the lighter patches. When these are dry, the bluish greys and solid whites are painted upon the browns, and heightened up with glazing. By this method we do not get the depth and transparency which characterises the real marble, and we have never seen a single specimen done in this way in which the imitation has been anything but painty—shewing that it was paint and paint only; in fact, the system is quite the reverse of the natural formation of the marble, which, as we have said before, appears as if all the reds floated upon the whites and greys. Now it will be evident that if we adopt the same plan and follow nature, we shall have a much better chance of making a good imitation, than if we go diametrically opposite to her teachings. This is especially the case in this class of marbles. Being led by the study of the marble to take this view of the subject, we found for ourselves a system or method of imitating Rouge Roi, and similar marbles, which we feel quite convinced is the only system by which a truly close imitation can be made, as it is grounded upon what appears to us as the way in which the marble was originally formed.

Its chemical or geological properties and formations we leave to the geologist, as not being essential to the elucidation of our subject.

Our method or system of imitating Rouge Roi is as follows:—Ground colour, flatted white stippled, or it may be a bluish grey, but we prefer the white, and although we do not require to use the crayons, we find that the stippled surface gives a better hold to the marbling colours, and serves to prevent them running so much as they would if the ground were not stippled.

The colours required are—(No. 1) light red (burnt ochre), and Indian red, with a little yellow ochre to form a light red of a somewhat reddish-yellow tone; (2) a darker red brown, made with Indian red, with sufficient black in it to form a warm red brown; (3) black alone in oil; (4) a strong blue grey, made from ultramarine blue and black—this must be mixed of a sufficient consistency to enable us to use it freely, having pretty well of turps in it; (5) Indian red, alone; (6) Indian red and burnt sienna; (7), plenty of flatting white.

The tools are—(1) a rubbing-in brush; (2) two or three sizes of flat tin tools, pencils, and small fitches; (3) plenty of stiffish brown paper, and plenty of rag. These two latter appear hardly to come under the term tools; but they are most essential to the success of our work, and therefore we may call them tools. Without them we could not get the effects required, but with them we produce effects of an accidental nature which cannot be got any other way; and the effects thus produced are exactly those which come nearest to the character of the under-work of the marble.

We first rub over the whole of the slab or pilaster

with the lighter red, thinning it with linseed oil and turps, but principally oil, having a little driers in it. We then rub in some of the darker red; this is put principally on those parts we intend to be the heaviest in colour in the finish; bearing in mind what we have before said about placing the darkest colour. We now take a tolerably large piece of the brown paper and fold or crumple it up as irregularly as possible, so that it can be held in the right hand conveniently. We dip the front of this into turps first, then into the stiff black, and gently dab it upon the darkest parts; first dabbing it upon the board to take off any superabundant colour, having a good-sized piece of rag in the left hand, and as the colour and turps are put upon the work we dab or press the rag upon it to prevent it running. We then go over the whole or greater part of the work with the blue-grey colour, using the paper and rag as before. After this is done, we take a piece of clean paper and turps, and go over it again in places, using the turps, paper, and rag as before, and opening it out more upon the lightest parts, or those parts we intend to be the lightest. We may now take a tin tool or fitch, dipped into turps, and open out those irregular patches and strips of white we see in the real marble, using the rag to dab it and wipe out here and there a vein or patch we intend to be solid white in the finish.

Before we proceed any further, it will be well to give the *rationale* of what we have been doing.

Our object in using the paper and rag is to produce by simple means the imitation of what we may aptly call the underwork of the marble, which appears in all shapes and forms in the grey, black, and white, of the semi-transparent portion of it—upon which the reds and browns appear to float. Another important object which this work effects is, to give an infinite number of gradations of shade or tint in the greys and reds of the underwork, and it also puts in a variety of shapes which would take an immense time if put in with the pencil, and even then would not be so characteristic of the marble: the turps being used with the different colours, and quickly prevented running or spreading out of shape by the use of the rag, we can work up afterwards with capital effect.

We omitted to say that when dabbing the colour and turps on to the work with the paper, we have found it of great advantage to give the hand a slight twist while the paper is in contact with the work; this gives us other shapes, all of which are useful in the finish.

In the real marble will be found large and small patches of bluish grey and black, having a sort of curled vein which encircles or runs through these patches, just as we sometimes see it on the top of stagnant water; this may now be put in while the underwork is wet, by taking a broad stiff fitch and charging it with a little grey and black, thinned with turps. As a rule, these have a serpentine form. In putting in these, the rag will be found useful to prevent the colour running, and to break up the formality of the lines as we see them in nature. We may now either proceed at once on the wet colour, or wait until it is dry, but in either case, we put in the reds and browns in solid colours. We again use the paper—dip it into the light red and dab this on to the lightest parts here and there; then follow on with the dark red browns on the darker parts of the work. These must be solid colours. We now take a hog-hair fitch and work these solid colours into large and small patches apparently floating on the top of the grey underwork; the large patches and masses of red-brown being put in with larger brushes.

Now, it will be at once perceived that this part of the process is a very important one, because it is this putting in of the reds which gives to the whole the special and characteristic features of the marble. As we work these reds—if we are observant, as we should be—we shall see portions of the underwork which, when confined by the red, give us glimpses of parts having great depth, and which, by a little labour in the finish, may be made to look exactly like the same parts in the real marble. Large and small portions of the grey underwork may be left uncovered by the red; but all should be surrounded by it. In putting in the reds, even where there are large solid patches of it, small bits of the underwork may be left uncovered, as these have a good effect, and are so, in fact, in the real marble. If, in putting in the large patches of red, we see in the underwork a peculiar shape or a portion having an appearance of depth and transparency, we would surround that part with the red, and not paint over it. We thus produce extraordinary effects which, as we have before said, cannot be produced any other way. We also find it of advantage when painting in the patches of red, to take two or three folds of very stiff paper, crumple up the folds as before stated, and press this upon the solid red. We thus uncover some of the grey underwork, and break up the solidity of the red, which gives it a still more stony look. The work may now be left to dry when it will be ready for glazing.

(To be continued.)

OUR PAST AND FUTURE.



ITH the present number the Journal of Decorative Art completes the term of its second year's existence, and on taking leave of the year 1882 we may be pardoned if we glance back upon the results of our labours during these last two years, and give a slight sketch of our plans for the future. With regard to the years that have gone, we feel—and that with some degree of pride—that we have so far fulfilled the promise with which we set out; having endeavoured—and we think successfully—to give to our subscribers a large amount of sound practical information, technical instruction, and useful knowledge connected with the house painting and decorating trades. The large and increasing circulation we have obtained and the hearty appreciation our labours have met with, encourages us to make increasing efforts to enhance

the usefulness and value of our Journal in the future. So far we may confidently assert that for sound practical knowledge, useful and RELIABLE instruction in all the detail of house painting and decorative trades, this Journal stands alone.

In our illustrations we have always kept in view the fact, that, except the designs given were of a workable character and such as could be easily applied to the ordinary run of house decoration, they would be utterly useless to our subscribers. Holding this opinion, we have taken care only to publish such designs as we ourselves would carry out in the ordinary way of business. Over elaboration has been avoided, and whilst the designs are in good style and well adapted to the purpose for which they are drawn, we have aimed at simplicity of form and gracefulness of line, and as a natural consequence, the judgment of the trade upon our efforts has been of the most appreciative character.

In the coming year we shall take a new departure. As we have announced we shall commence the new year with a beautiful chromo-lithographed sheet of raised and shaded letters of a very useful character. This will be succeeded monthly by sheets of alphabets and suitable ornaments, &c., &c., which will include everything of a useful and instructive character for the use of those engaged in, or learning the art of sign writing, gilding, and embossing on glass.

In order to make our journal still more useful and instructive in the future, we shall whenever practicable, be prepared to supply at a nominal cost, stencil patterns—on stout cartridge paper ready for cutting—of all the designs we issue. These will be of the proper working size, suitable for ordinary doors, ceilings, walls, staircases, &c. Our subscribers will then be able to work out these designs in the best manner and with the least expenditure of time, labour, and money. They will also thus ensure a good class of designs such as will be most likely to satisfy their clients. Another advantage will be, that every such design will be accompanied by ample instructions how to treat them in the best manner, and with the most harmonious combinations of colour.

In addition to the stencil patterns we shall when the designs require it, have tracings made of all the detail and shading of the original drawings, these also we shall supply at as low a price as possible. Now we are quite aware that there are plenty of excellent workmen who can execute these works correctly and well, but who have not had the advantage of any instruction in drawing, and in consequence, have not the necessary confidence in themselves to attempt to draw in the detail of these designs. Others again who are fully competent for the work, may not have the necessary time to do it. In both of these cases, these tracings in addition or in connection with the stencil pattern, will be of great service. We feel assured that our subscribers will appreciate the advantages of the above plan, and will largely avail themselves of it as a certain means of ensuring works of a thoroughly good class.

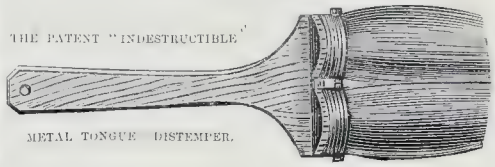
We shall of course continue our technical chapters as usual, and record everything of a useful and interesting nature appertaining to trade matters.

Our Prize Scheme we hope, will have a beneficial effect, and stimulate competitors to earnest and continuous efforts to improve themselves in the arts of design and in manipulative skill, and thus be enabled to spread abroad a true knowledge and taste for the beautiful in nature and art.

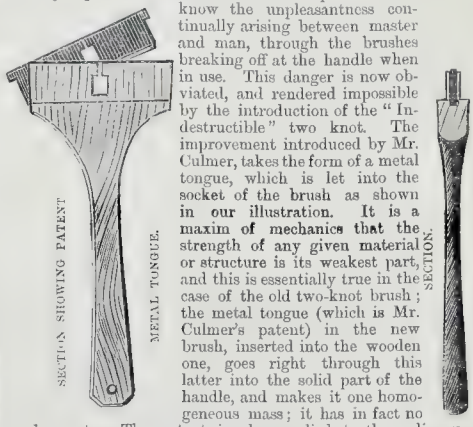
In the future as in the past we shall be always willing to give practical answers to all questions in connection with the trade and shall be best pleased by our subscribers making as much use of this portion of our labour as their necessities may require.

TRADE INTELLIGENCE.

Mr. J. CULMER (of Messrs. W. Culmer and Sons, Hornsey Road, London) is very honourably associated with several improvements in the manufacture of painters' brushes. Early in last year we had the pleasure of noticing a cheap and serviceable metal-bound duster, which Mr. Culmer introduced,



the success of which we are pleased to hear has been very great. Mr. Culmer's latest patent is the application of a very simple and ingenious idea to the ordinary two-knot distemper brush, by means of which, it is rendered utterly impossible to break it except of deliberate and set purpose. All who have had any experience of the two-knot distemper in common use, know the unpleasantness continually arising between master and man, through the brushes breaking off at the handle when in use. This danger is now obviated, and rendered impossible by the introduction of the "Indestructible" two knot. The improvement introduced by Mr. Culmer, takes the form of a metal tongue, which is let into the socket of the brush as shown in our illustration. It is a maxim of mechanics that the strength of any given material or structure is its weakest part, and this is essentially true in the case of the old two-knot brush; the metal tongue (which is Mr. Culmer's patent) in the new brush, inserted into the wooden one, goes right through this latter into the solid part of the handle, and makes it one homogeneous mass; it has in fact no weak part. The patent is also applied to the ordinary paint brush. Amongst its other recommendations we may enumerate that whilst greater efficiency and permanency is thus secured, it is done without any additional cost to the purchaser.



JOSEPH MASON & CO.,
MANUFACTURERS OF
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THE JOURNAL OF

DECORATIVE ART:

An Illustrated Technical Journal for the House Painter, Decorator, and all Art Workmen.

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"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

AS IT SHOULD BE.

WE have fallen upon times which in one phase are marked by an excess of competition. The struggle for position and success is maintained year by year amid increasingly stringent surroundings, and against the keenest rivalry. As a general principle we don't find much cause for regret in this, and it is only playing the part of wise men to frankly recognise and accept what is apparently the inevitable outcome of the social and commercial conditions by which we are surrounded. The danger to us begins when we allow this feeling of rivalry to become the mastering passion and ruling motive of our business conduct. Competition is the sworn foe of monopoly, and is a healthy and sound commercial basis, but what we do deplore is, the results which in many towns we are acquainted with, seem to flow from it. It is in these places, regarded as full and sufficient cause for estrangement and coldness amongst fellow tradesmen whose interests rightly viewed, are to be found in a close and sympathetic relationship. The old fable of the man and the bundle of sticks, contains a truth that we cannot afford to lose sight of or disregard. The immediate cause of these reflections was, a recent visit made to Manchester by a number of Edinburgh master painters, and the state of things to be found in Scotland, which we are enabled to speak of from personal and relative experience. In the case of the visit of our Edinburgh friends, there was the most fraternal spirit existing amongst them and a disposition to meet each other and help each other in every possible way. This accords to the full with what we know and have seen elsewhere in Scotland. A master painter there, if he sees a fellow employer coming down the street, does not march off to the other side as though there was a taint of leprosy to be feared; but meets him not as a competitor he must shun at all hazards, but as a fellow craftsman whose experience and counsel will be willingly placed at his service in an emergency. That this is the right and proper relationship to exist between employers in any business—the common sense one—no wise man will deny for a moment. It places the men whose habit it is to meet thus on one common ground, on a much higher level of purpose and thought; it enlarges their sympathies and expands their highest faculties.. Compare this course to the narrow and restricted one we have alluded to above, with its horizon bounded on all sides by selfish apprehensions, and petty jealousies and fears, and think for a moment which is calculated to produce, either a higher status amongst the masters themselves, greater unity of purpose when moving as an associated body; or a higher character of work executed. It is not the first lesson that we have had to learn from o'er the Border, and if we only learn it so as to bring it into active operation, a much higher tone would soon permeate right through the trade. There is another fact which makes it imperative on the painting and decorating trades to employ every legitimate weapon that comes within their reach, and that is the aggressive attitude of the furnishing houses. Year by year we see the war carried further into our own territory, and the best and most profitable portion of the trade monopolised by furniture dealers, or furnishing decorators, who reserve all the "plums" for themselves and leave the rough and thankless part for the house painter. If we would combat this successfully we must cast aside all apathy and any little jealousies, and unite to show a bold front to our opponents. We desiderate some bond of union which shall draw together more closely the interests which lie scattered all over the country in a fragmentary form, and if our subscribers like to avail themselves of the columns of our journal, to suggest some scheme which would unite the master painters, in a form that would promote the highest interest of the trade; we shall be pleased to give the question prominence, and further it to the fullest extent of our power.

NOT DEAD.

WE were both surprised and annoyed the other day, to receive a letter from a subscriber at Torquay, stating that his bookseller had received from some London agent, the usual news-list with the word "Dead" opposite to the name of the *Journal of Decorative Art.* It is hardly necessary to say that we are not dead, nor have we the slightest intention of dying, even to please a libellous news agent, or to verify his predictions. We think the inherent vitality displayed in this current issue, is evidence sufficient, were any needed, that we are of the quick, and not of the dead; and that our intention is to live to a lusty old age, if our numerous friends only adhere to us in the future as they have done in the past.

How such a report could arise we cannot explain, it must have been born of pure mischief or malice. Should any more of our subscribers meet with a similar report; we shall deem it a personal favour if they will acquaint us with the fact, and the source of their information.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

(ALL RIGHTS RESERVED.)

CHAPTER XXVI.—DECORATIVE PROCESSES: GILDING AND ORNAMENTING ON GLASS.

WE have hitherto spoken of this system of gilding as applied to glass by hand power alone, but it has also a wider application in connection with printing and transferring from engraved copper plates. Some years ago, a patent was taken out for a method of transferring designs to glass in this way; the outline and shading of a design were strongly engraved on copper, the printing colour being made with linseed oil boiled to the consistency of a strong jelly when cold; finely ground or powdered ivory black being mixed with the oil to form the printing ink. The copper plate was then placed upon a stove plate, and the ink being laid upon it when it was hot became soft, and was easily pressed into the lines of the engraving with a boss or dabber made for the purpose. The superfluous ink was then taken off with a broad-bladed palette knife, leaving the lines filled with ink. A specially prepared paper was then brushed over with a thin wash of soap-lye, and, while wet, laid upon the copper plate, and quickly covered with a printer's blanket, the whole being then subjected to the pressure of an ordinary screw printing press. The warmth of the copper quickly dries the paper, and it is carefully pulled off the plate, bringing the ink with it. The impression is then laid upon the glass to be ornamented, and rubbed with a rubber. When it has been on some time, the paper is washed off with a sponge and water, which leaves the print upon the glass. The glass is now put into a stove to harden the ink, when it is cleaned and ready for gilding and for colour.

It will be at once evident that the most elaborate designs, such as coats of arms, ornaments, &c., &c., may be thus executed without the aid of highly skilled labour, that is to say, after the design is put upon the glass, ordinary labour may be used for gilding and colouring, under efficient superintendence, and thus the cost of such works may be reduced so as to ensure a wide application and use.

Another method, in which printing from copper may be used on gold, when applied to other surfaces than glass, is as follows:—We first gild the object to be ornamented (which may be a tea tray, a box, a chair back, &c.) with leaf gold, using the isinglass as a medium, just as if it were for gilding on glass; but the size may be used a little stronger.

The ink to be used must be mixed so that it will not get dry and hard, but in such a manner that turpentine or other like spirit will soften it (this may be done by adding a little of any non-drying oil or grease to the ink). The impression of the design is taken off the plate in the manner before described and transferred on to the gold, the paper is washed off, leaving the ink on the gold. We now wash off the superfluous gold with cotton wool, that is, all that is not covered by the ink. When this is done we then wash off the ink with turps or other spirit, and the designs will appear in bright burnished gold, and in this state may be etched if desirable with fine lines, but as a rule this is not necessary, as all the lines may be engraved. By gilding in this manner the gold will be much brighter and smoother than if oil size were used. It will of course be understood that the copper plates have to be engraved in a special manner for this work. They require to be cut deeper than for printing upon paper, in order that a sufficient quantity of colour may be conveyed to the glass or gold to prevent the water moving it, and also to avoid bare places; for except the gold be well covered it will break up in washing, and for the broad parts of leaves and ornaments, a particular kind of cross hatching is required to print a solid colour with. The mixing of the colour or ink will require some experience, solidity, tenacity, and solubility, being indispensable. Many attempts have been made to accomplish this object by lithographic processes, but it is found that the stones will not carry a sufficient body of colour on to the glass or gold to secure it so that it will bear washing with water, and therefore the lines are ragged, and the broad parts pinholy.

We have used this method of producing burnished gold on the outside of glass vases on varnished and other smooth surfaces, the process being very useful for many purposes, and the gold has a brightness which no oil gilding can equal. In this case, if the object to be ornamented in gold is a varnished surface, we get up the work as smooth as possible, and use a varnish free from nitts or undissolved gum. Upon this we lay the gold, using isinglass size exactly as in gilding glass, polishing it with the cotton wool, and give it a coat of the finishing size. We then pounce or trace the design on to the gold in the usual manner, and paint in the ornament with Brunswick black, or Canada balsam; and when this is dry we wash off the gold which is left uncovered by the design; then wash off the Brunswick black with turps; the design will then appear in bright burnished gold. It should be understood that the smoother the surface of the work and the brighter will be the burnish of the gold. The article thus decorated will only require to be varnished over again to secure the gold permanently. This plan has another advantage over oil-gilding, inasmuch as it has no perceptible projection above the surrounding surface. Very beautiful work may be done upon glass vases, bottles, &c., by this plan; and when the gold is varnished it is surprising the amount of wear and tear it will stand. The best copal varnish should be used for covering the gold, as it has more tenacity, and does not become so brittle as the quick drying varnishes do, consequently it is not so liable to chip.

We had intended to have followed the gilding on glass with the instructions for embossing on glass; but in consequence of our issuing the sheet of

coloured letters, and the necessity for following up until it is completed the instructions in sign-writing, we are compelled to defer the embossing for a little while; but, in the mean time, we shall be open and willing to answer any questions relating to embossing which may be of service to our subscribers.

SIGN WRITING (ILLUSTRATED).

Chapter I.

In accordance with our promise, we give this month (January, 1883) a Sheet of three-inch Letters, in gold and colours. The Sheet of Alphabets is in preparation, and will be issued with the February number.

Since we have had these sheets in hand, we have decided in the interest of our subscribers, that it would be much the best plan to follow out the subject of sign-writing, and to keep the instructions therein and the illustrations connected therewith, in a compact and useful form, so as to be easy of reference.

In this series we shall describe and illustrate everything that is necessary to the thorough understanding and practice of the art.

As our aim and object in these papers is to give sound practical information, we shall not occupy our space any more than is absolutely necessary, with dissertations on the merely literary and speculative part of the subject. But it will not be out of place if we dwell for a moment upon what may be aptly called the historical side of it.

Signs and tokens are as old as the hills; or, at all events, as old as human intelligence. The savage in his wildest and most primitive state, describes what he wishes to be known in rude hieroglyphics, and makes his marks, and pictures of animals, intelligible enough to those they are intended for. The ancient Egyptians and other old world nations copied the savage to a great extent, as shown in their works yet remaining to us. Coming down nearer to our own day, we find that signs and tokens were in extensive use by our ancestors—not signs as we know them, but actual representations either in painting or carving of the things they dealt in, or the craft or profession they followed. Of this custom, we have still many examples in use:—such as, the barber's pole; the figure of a black man holding a pipe at the door of the tobacconists' shops; the checquers, painted on the door posts of some of our oldest inns or taverns; the fish, dangling to the end of the rod and line outside the shops of the fishing-tackle dealer; the coloured bottles in the druggists' shop window; the three balls of the pawnbroker, &c., &c., In those old days, lettered sign-boards were not in use, or very rarely so. The sign-writer proper had not made his appearance; he was then a sign-painter, and not a sign-writer, as we know the trade. At first, the name would be written at the bottom of the picture sign, but it gradually encroached upon the picture, until it replaced it altogether, except in isolated instances, until sign-writing as a trade, became, as at the present day, a universal want. The spread of the knowledge of reading and writing, has no doubt brought about this consummation. Picture-signs were well enough at a time when men who could read were the exception, and those who could not, the rule. If we wish to succeed in any business or profession, we must advertise ourselves—let every passer-by know what we do and what we sell; and thus the art of sign-writing has become a very important one indeed.

To a very large extent the art of sign-writing is a mere mechanical art. The forms of the letters being fixed and arbitrary in shape, although capable of being modified to a certain degree by each individual sign-writer—for it is with letters as with handwriting—each practitioner imparts to his letters the sympathy of his own individuality or style, in their curves and serifs; still, however, retaining, as he must, the original shape of the letter. This he cannot get away from, or else his letters become ridiculous, and it is in this sense that sign-writing is mechanical, for the shapes of the letters are fixed, and very little variation is admitted. These shapes, being universally adopted and recognised, we have only to acquire a thorough knowledge of them, which once learned cannot be forgot, to enable us to form any kind of letter.

The letters and shapes being thus fixed and unalterable, it will seem almost a contradiction of terms to say, that we do not require the aid of the compasses or mathematical instruments to form them, and that the free hand drawing of them is the best system of acquiring that power. We are told by one author—who has published a book to prove his system to be the best, and who plumes himself greatly on his own cleverness—that the only true way to form letters is to set out your board in squares, and count so many squares to each letter; and in the series of examples he gives to prove he is right, he most conclusively proves that he is wrong, inasmuch as the S and the R are, in every case, much thinner in the middle part than in the tops and bottoms. The tops and bottoms occupy a full square, and the middle stroke in one case a quarter of the thickness, and in the other a third. Now, this is decidedly wrong, and utterly destructive of all grace and beauty in the letters, and can result in nothing but unmitigated ugliness. In fact, the said author could have given no stronger illustration of the futility of his system than the examples he has given to support his theory in practice. This is apparent from the fact that a man might set out and write the sign, in the time that it would take him to form the squares on the board before he could write a letter. Another writer on the subject, whose book in some respects is admirably written—from a literary point of view—and who quotes very largely from Mr. Camden Hotten's history of sign boards, tells us, and shows by elaborate diagrams, that letters should be formed on strictly geometrical principles; and to prove this, gives us examples embodying a multiplicity of lines, radiating from different points—a process which involves an amount of time and trouble utterly superflous in practice. We may, therefore, dismiss these gentlemen with the remark that the first seems to have got a crotchet, which he has worked out to his own satisfaction, and the other is simply a book-writer, who has culled his

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information from all the sources available to him, in order to make a book.

We may now return to the fact to which all experience bears testimony, that a thorough knowledge of the various styles of lettering, obtained by educating the hand and the eye, is the only true method to make a first-class sign-writer. The knowledge of setting-out and shading will come afterwards, and it is to these parts of our subject we shall direct our teaching, as being, apart from the formation of the letters, the most important parts of the subject.

We shall resume this portion of our subject in our February number, as we are desirous of giving a full and instructive description of the coloured sheet of letters issued with this number, and in doing so, we would point out that we have had in view, not only the foundation of the best and most popular and suitable letters for use in sign writing, but we have also designed each example as a lesson in the harmonious combination of colours, this being a point in which great mistakes are made, very often by those who ought to know better. We often see otherwise good work completely spoiled by inharmonious contrasts of colour. In our examples the ground colour upon which the letters are painted, the colour of the letters themselves, and their raised and shaded parts, will be found in complete harmony the one with the other, and in copying each individual arrangement, the student, or workman, will be certain of forming a pleasing combination of colours.

The imitation of raised or blocked letters had its origin no doubt, in the use of thick or projecting letters made of wood and secured to the sign-board instead of painted letters. The edges or thickness of these letters were painted a different colour generally to that of the face of the letter, and sometimes gilt. In looking at these projecting letters when fixed on a signboard, it will of course depend upon the position in which we stand, as to whether we see the left or right hand side of the blocks or edges of the letters. But if we stand opposite the middle letter of the line, we shall in that case only see the face of the middle letter and the edges of the others on each side more and more, as they recede from our point of view. Now to imitate raised letters from this position, we should require a thorough knowledge of the principles and practise of linear perspective; but the sign-writer never paints letters on this plan, in fact, there is no necessity for him doing so, as his letters look the most natural and the best when the raising or blocking is done upon one side of the line of letters only, and while each letter in the same line is blocked on perspective lines, these lines are such as are applicable to each letter on that line. Of course *this* does not apply when lines of letters are formed in perspective, of which we shall speak next month.

It will be seen from what we have said that while the sign-writer paints his letters in imitation of raised or blocked letters, he does so to a great extent in contradiction to the strict laws of perspective, but in spite of this he produces the very best results for the purpose intended. Consequently we see that it is not absolutely necessary that he should have a thorough knowledge of the laws of perspective (although he would no doubt be all the better if he had that knowledge), but only sufficiently so to enable him to form the necessary lines to give the thickness of the letter and its shadows the right inclinations, according as the said letter is placed on the point of view from which we see it.

In the coloured examples on the sheets we issue will be found illustrations of the various positions from which a letter is seen, which we proceed to describe.

No. 1, the letter E, is a specimen of the Egyptian block with curved serifs. In this example the ground is blue, Ultramarine blue, with a little white mixed with it. The face of the letter is gilt, and the raised side of the block is of a reddish yellow hue made from yellow ochre, burnt sienna and white, the shaded portions of the block being made by adding burnt umber to the reddish yellow colour.

It will be seen that upon the side on which the light is supposed to fall, there are portions which are of a still lighter colour than the other parts upon which the light falls, and these touch the edge of the face of the letter and the angles of the block. Now although this is not strictly correct according to the laws of light and shadow, for if it were a real projecting letter, the light would be equal in intensity upon all the parts on which it falls, yet we do not err in putting them there, as they seem to heighten the effect and do not really look out of place, bearing in mind that in doing this kind of work on sign boards we are not confined to the strict rules of light and shade, but are quite justified in painting that which looks the best and gives the best effect to the letters, that is, so far as it relates to the addition of these high lights, which seem and do add beauty and effect to our work. But nothing will justify gross blunders in the application of cause and effect, even as applied to sign writing; on the other hand, we are allowed a very wide latitude in these matters if we keep within the bounds of possibility.

It will be observed that the shades on the block do not finish at the angles as is commonly done but are carried some little way past it. This shadow is strictly correct and is thrown by the under part of the block, but if it were not correct it would still be advisable to show it, because it adds so much to the effect. Generally speaking, this fact is ignored by the ordinary sign-writer, simply because he does not understand or has not studied the effects of light and shade.

Of the back shadows to this letter, which represent the shadow thrown on the ground colour of the board by the block or projecting letter, the first is black, and the transparent or semi-transparent shade is made from vandyke brown, or burnt umber used thin. The two shadows here used for this purpose are strictly correct, and may be observed thrown in different degrees of intensity from any projection. This is another thing we should be justified in doing even if it were not correct, because, it adds so much to the effect. In setting out these letters on a board, six lines should be struck for the letter itself, two for the top and bottom, two for the thickness or width of tops and bottoms, and two for

the centres, and when we are setting out the blocking or thickening of the letter it is always best to strike lines for these also; so as to ensure them all being of the same width, or thickness, but these matters we shall treat upon fully in another part of our subject. We may also note here, that this description of letter always looks better if the tops and bottoms are a little thinner than the upright or thick parts, as we are enabled thus to get a more graceful form, and in making any letter such as the S, the B, and R, they should not be divided equally on signboards, but should always be larger in the bottom half than in the top one. The reason of this is as follows, signboards as a rule are placed above the line of sight, and in looking up at them, if the letter is equally divided as it is in printed type, the top part will look larger than the bottom, and consequently look "top heavy," it is to rectify this optical delusion that we make the bottom half larger than the top.

Letter No. 2 is an ornamental one, being gold on a black ground, raised and shaded in pink, made from crimson lake, and shaded with lake with a little burnt umber added. The ornament is also etched and shaded with black and burnt umber. We prefer burnt umber to burnt sienna, the colour usually employed in shading gold, the umber is quieter and not so red—the two, however, may be mixed together. Gold letters on a coloured ground always look best, even when raised and shaded, with a black outline—on a black ground this is not required.

We have not much to say in favour of this style of letter, for although it is a readable one and looks handsome enough when well done, it is not a letter for general use, but is only suitable for exceptional or special works. As our remarks on light and shade will apply to this letter, we pass on to No. 3, which is S. This letter is of a very ornamental shape, but is for all that a plainly readable letter, and may be used for any of the purposes of sign writing. In the raising of this letter, as well as in the previous one, we are supposed to be looking at it from its left hand side, quite opposite to letter No. 1. Consequently, the shadows of the S are seen on the opposite side. This is a gilt letter on a vermilion ground, the raised block being a shade of green—of course, any shade of green may be used lightened up with white; the green, yellow, and red of this letter, combine to make a perfectly harmonious whole, and the black and transparent shadows purify the other colours and softens or blends the one into the other. It will be observed that the high lights upon the S and B are white, and are more pronounced and distinct than those upon No. 1. In doing this, we are quite in accordance with the true principles of light and shade. If we were looking at a real projecting letter, we should see these bright lights upon the exact spots we have shown them here. This would be more especially the case if the sides of the letters were varnished or polished, for wherever there is a hollow or round exposed to the light, a portion will be lighted up as here seen. We may observe it upon almost any polished surface around us in our homes, on turned chair legs and backs, on tin or glass ware, the white speck on our eyeballs, &c. So that while on a flat surface, such as the sides of the E No. 1, we are not strictly correct in placing these high lights; there can be no doubt about our being so on rounded surfaces. The sunken space in the centre of this S may be used or not, according to taste.

Our next letter, No. 4, is placed here specially to exhibit to the student the true principle upon which the blocking out or raising and shading of letters is done, and, in order to make this more plain, we have drawn the letter as if it were blocked out both externally and internally. Consequently it appears as a raised letter built up as a shell, in order to show a much clearer definition of the lines upon which the work is done. Now although it is absolutely necessary that all these blocked or raised letters should be done upon perspective lines, yet it is left to the painter's discretion as to what degree of inclination he gives the blocks, this being, in fact, a matter of little consequence, so long as all the letters in the same line have the same inclination. We have always found the set-square to be most useful in setting out the proper inclination of the raised blocks. If we put the set-square on the top line of the letters, with the slanting edge downwards, and just touch the top corner of the letters, this will give one of the best perspective lines for the purpose, and if we move the set-square along so that it touches each corner in succession, we shall get every part of the block on the inclined or perspective line. The right line on round letters may be got in the same way. As a matter of course the experienced sign writer does not stop to take all this trouble to obtain accuracy, but trusts to his eye; but until the student has acquired the necessary proficiency, it will be best for him to adopt these accurate means to the end, as he will by doing so educate both his eye and hand. The whole of the blocking on the coloured sheet has been done by the means described above. This letter, H, is simply a modification of the plain block letter ordinarily in use, with semicircles introduced on tops, bottoms, and sides, which gives it a not unpleasing form, nor does it injure or interfere with its readableness. If we take away the outside blocking, and simply start with the gilt edge on the flat surface, and then paint the inside of it as it is here shown, we then make a sunk letter of it, so that it serves the two purposes as a lesson.

In the letter A, No. 5, we give an example of an illuminated capital, done in colours upon a gold ground, with turquoise gems, flowers, and leaves, as filling. This is a very suitable letter for church work and illuminated manuscripts, but as we shall have a good deal to say further on in reference to Ecclesiastical lettering, we will pass on to the letter B, No. 6, which is an ordinary Roman letter, in buff, on a citron ground, and varied with a shade of blue grey, and back shadowed with black and umber. The ground colour is a mixture of ochre, burnt sienna, umber, and white. In this letter it will be seen that the shadows of the under sides of the block are run upon and past the angle in a slanting direction as they would be on a real projecting letter.

Letter, M, No. 7, is in its outline of the same character as E, No. 1, namely, Egyptian block,

with rounded serifs, ornamented. This example is placed here to show how easy it is to make, or rather to ornament a letter. This is essentially different to an ornamental letter, it is simply a plain letter ornamented, there is no interference with the shape of the letter, and we have designed it expressly to show how letters may be highly ornamented, while still keeping their plain form. The ground colour is the same as that of the letter B, No. 6, and the watered ground is put in with a thin wash of burnt umber, the puce colour of the body of the letter is made with vermilion and ultramarine blue and white. We claim a perfect harmony of colour for this letter. The ornamentation is pleasing and simple. Of course, there are a vast variety of different ways in which ornament may be applied to this kind of letter, whilst keeping its exact shape, and we have often wondered why our sign-writers did not avail themselves of this fact. The mistake has, no doubt, arisen more from ignorance than anything else, and when an ornamental letter was required they have had recourse to the most elaborate and unreadable letter they could find, and thus stultified themselves.

The letter E, No. 8, is what is called a square Egyptian block, and raised in exactly the opposite manner to any others on the sheet, and blocked out at the top instead of the bottom. To see a real projecting letter in this form we must stand above it, and look down upon it. But it may be done upon signs placed above the line of sight as well as below it. As we have before said, there is no hard and fast rule in sign writing, and we know of none forbidding this being done. We give it here as a finished example of the proper treatment of letters in this position. In this case it will be seen that the shading on the ground colour is on the same side as the blocking, differing from all the other examples shown, where shadows are on the opposite side to that of the blocking or raised parts. This is not a necessary consequence of using this letter, but is given as an example of diversity of shading.

In the doing of all letters that are supposed to cast a shadow, a wide latitude is allowable as to the direction or angle of the perspective of such shadows, for it will be evident that the degree of inclination of each shadow will depend upon the direction in which the light strikes the letter. If the light falls straight from above on to the projecting letter, then the shadows would be broadest underneath each projection; but if it strikes the letter full on the side, then the shadow would be broadest on the opposite side to that on which the light falls, and little if any underneath, or on top. This may be illustrated by looking at a picture-frame hung on a wall, upon which the light from the window falls upon it sideways. We shall see that the inclination of the shadow thrown by the frame, is governed by the position of the picture in relation to the height of the window; for if the window is lower than the frame, then the shadow will be shown on the off side and on the top, but if it is higher than the frame, then the shadows will be reversed, being underneath, and on the off side. A little observation of the objects which surround us will often lead to a train of thought, resulting in definite conclusions, highly serviceable to us, both in business and other matters. The light is supposed to fall upon this letter on the right side as we look at it, and as a consequence, looking at it from above, the parts that ordinarily are lighted up, are here thrown into shadow. The ground shadow, or we should say the cast shadow,—that is, cast on the ground by the projection of the letter, is on the same side, the effect being quite as good as if done the other way.

The letter No. 9, M, is strictly an ornamental letter in shape and decoration, and although it is so, it is a comparatively plain and readable letter, and may be used for church work and for illumination as a capital letter, or one of a series of capitals. And the whole of the letters in this alphabet are equally plain and readable. We give it here as a style of ornamental letter, of a very useful character, whether used in plain black or ornamented, in the style here shown, the essential form and shape of the letter being retained in either case. It is done upon a gold ground, which is covered with suitable ornament in black—the white and black outline and filling, giving sufficient distinctness to the letter, harmony of colour being maintained in this combination.

We now come to No. 10, being another example of the letter E, which may be called a thick-stroked Roman capital, and is a white letter on an olive green ground, same as the H, made slightly ornamental by adding the circle and bead in the centre of the thick stroke, and also making an agreeable novelty in the painting of the block or raised parts, which consists of two stripes of strong pink and one of green. Many very excellent effects may be thus obtained, and, of course, an endless variety of colour may be used.

In this example, the absence of the yellow is compensated by the yellowness of the green, which in a combination of colour where a decided yellow, whether colour or gold, is absent, should always be of a yellow and not of a blue shade, in order to produce harmony; the cast shadows being black and burnt umber. It should be observed that back shadows are always most effective when black is used, not only because it is the most effective colour for the purpose, but because whenever black is used in any combination of colours, whether in outline or in the mass, it always purifies and brightens the colours it comes in contact with. The dark shading upon the pink and green bands of the blocking are made with lake and burnt umber.

We now come to No. 11 which is comprised of four letters on a stone colour ground, two of which are sunk letters, and two surface letters. The first letter is an imitation of the bevelled sunk letter, such as are generally cut upon grave stones, and for other purposes. The ordinary manner of doing these produces two effects namely, a sunk letter, and a projecting one, and in fact it is in the very nature of the thing that it should do so, as the same lights and shades, produce both effects, and it is hardly possible to avoid it. In this example we have so arranged the lights and shadows that we see it nine times out of ten as a sunk letter, but with all our care it will be seen occasionally as a raised one.

Our next letter cannot by any possibility be seen as a raised letter, as it differs from the first, in being the representation of a sunk letter, with a flat bottom, and perpendicular sides. When well done these letters are very effective, and very useful too.

The gradations of light and shade should be well studied, so as to enable the writer to do them without having a pattern to go by, as we see many attempts made to execute this style of lettter, which from want of knowledge of the principles of light and shade, have miserably failed. The two last letters N and R, are simple examples of the ordinary plain block and Roman capitals, shaded on a stone colour ground, showing that flat letters may have shadows added to them with good effect, although they themselves are not capable of casting a shadow, and in this respect may appear to sin against all the rules of the schools. In theory, no doubt, this is wrong, but in practice, it adds very much to the effect and beauty of the letters, and seems to emphasise and define them, and as we have before said there is no strict rule in the matter, custom and practice ignores theory in this case, and we think custom and practice is right, the taste and skill of the artist being the principle factor in the question. These four letters are all shaded with burnt umber. The letter S, No. 12,* is another example of harmonious colouring, the letter being an Egyptian block made slightly ornamental, by taking our semicircles in the serifs and adding them to the thick stroke in the middle, this is another example showing how slight an alteration will give quite another character to an ordinary plain letter. The ground colour is a maroon made of indian red, black and blue. The letter has a gold edge, the body colour within the gold lines being citron or cerise, and the blocking a puce colour, made from vermilion and ultramarine blue, or indian red instead of the vermilion. This is a letter that may be used for any purpose and will always look well if properly done.

In our February number we shall give raised and shaded alphabets, of letters No. 1, 3, 8, 9, and others. We may fitly conclude our remarks on this sheet with the hope that it may be found useful in teaching the young student—whether apprentice or improver—the true method and principles concerned in executing such works, and will also be effectual in correcting some errors which we frequently see perpetrated by experienced men who should know better.

We would also take the opportunity to suggest to employers that they should have these sheets strongly but cheaply framed, and hung up in their workshops, where the apprentices may see them constantly. If this be done, we are persuaded much good would result. The young people will in their spare time begin to copy them, and thus get an accurate knowledge of the forms, and shading, of the various letters; which may produce results beneficial to both employers and employed. The copying of good examples cannot be too strongly insisted upon, as it is only by such a course that an accurate knowledge can be acquired, and when once a boy begins to use the chalk, or lead pencil, no man can tell what results may follow, and it is from this view of the case, we tender the advice to employers.

*We regret to have to point out that our Lithographer has made a very serious mistake in the colours of the letter S No. 12. The original supplied to them for copy, was painted in exactly the colours as described in the text, which is of course very different to the printed example. We did not observe the mistake until it was too late to alter it, but we are annoyed beyond measure that this should have occurred. We have also unfortunately to point out another error in the bevelled sunk letter E, it will be seen that the shadow of the up stroke is lighter than the other part, and of a different colour. This is wrong, as all the shadows should be alike in colour. Apart from these two faults, the work is admirable, and subscribers will be able to rectify these errors themselves from the written description.

OUR COLOURED SHEET OF LETTERS.

As many of our Subscribers may wish to retain the Coloured Sheet of Letters given with this number of the Journal for binding purposes; we are issuing the sheet, mounted on strong cardboard, with tape ready for hanging up in the workshop, for the sum of eighteenpence each. The value of these sheets for such a purpose will be apparent, and need no words of ours to commend them. As they are too large for sending through the post, application must be made through the booksellers, who can obtain them from Mr. Henry Vickers, 317, Strand, W.C.; Mr. John Heywood, Manchester; Messrs. W. H. Smith & Sons, 186, Strand, W.C., or any of the wholesale London houses.

BOUND VOLUMES.

A LIMITED number of the second volume of the *Journal of Decorative Art* have been made up, and can now be obtained either from Mr. Henry Vickers, 317, Strand, W.C.; or direct from the Head Office, 1, St. James's Square, Manchester. Price 9s., post free 9s. 6d. The volume is full of interesting and thoroughly practical information, and contains two beautiful coloured plates and forty pages of practical illustrations. It should be in the hands of every master painter in the country. Covers for binding, with specially designed back, can now be had, price 2s. each.

ART NOTES.

THE gathering together from time to time of the entire works of different modern masters is, both from an educational and an artistic point of view, a step in the right direction. It affords the public an opportunity of gauging the full calibre of the artist whose collected works are being shown, and to notice the progressive stages of his work in a manner which cannot be done by simply seeing them on view individually, either in exhibitions or private galleries. The exhibition now open at the Grosvenor Gallery, Bond Street, of M. Alma Tadema's works, is more than usually interesting, as the artist is one of a few who have a distinct individuality of their own in subject, as well as in style.

M. TADEMA has for many years past devoted himself to the representation of the life of the Roman, the Greek, and the Egyptian, not in a dry archæological spirit, but with a pencil instinct with the life of bygone ages. His pictures have revealed to us, not the architectural beauties alone of Greece and Rome, but the passions which moved men to action, and made their history what it was. In his work we have all the various sides of old-world life presented to us. Such pictures as (49) "The Death of the First-born," and (61) "The

Proclamation of the Emperor Claudius, after the murder of Caligula and his family by the Prætorian Guards," are of the highest class of painting. In both, the deepest passions that stir the human heart are seen at work under the living touch of the painter; whilst (73) and (127), "En Repos," and "The Bath," are the very converse of the two former pictures, in theme and in treatment, and show the wonderful versatility of the man.

The pictures are so hung that we can see the paintings in their progressive sequence, and are thus enabled to take in at a glance the marked advance which the artist has made in his art since his first appearance, nearly twenty-four years ago. As a master in the *technique* of his art, M. Tadema has no superior amongst contemporary painters, some of his work recalling the marvellous patience and faithfulness of Millais's earlier paintings. But it is in the rendering of marbles and metals—a branch of Art work which has claimed the special attention of M. Tadema—that the casual observer is first impressed with his power. Some of the effects thus produced are startling in their naturalness, this is more observable in the lighter and simpler marbles than in the darker ones. In his later works we see a wonderful mastery over "tone," and a subtle perception of its value; a very rare faculty this, if we are to judge by a great many of the works of modern artists, but one which more than any other, marks off the true artist from the nominal one. This love for light, and light effects, is found in all Tadema's works, and his ability to render them is demonstrated in many of the pictures on the walls at the Grosvenor. The collection should be seen by all interested in Art work.

Since our last notice, the Exhibition at St. James's Hall Manchester, has, in many of the stalls, undergone quite a transformation. Messrs. Gillow's exhibits, which were altogether too elaborate and high-class for the purpose of effecting business, have given place to furniture more within the range of the "upper middle class." Mr. G. F. Armitage has substituted a simpler form of treatment in his room, which, doubtless, has minimised the cost without adding to the beauty. The present frieze is of very indifferent merit, and can in no sense be regarded as satisfactory. Messrs. Elliot and Alston have added some fresh attractions to their already cheerful display, whilst on Messrs. Kendal, Milne, and Co.'s stand are to be seen many fresh articles likely to suit a leaner purse. Many of the original exhibitors have disappeared altogether. From some cause or other the Exhibition has not been a success in point of attendance. The display is undoubtedly a very good one, and the exhibitors will derive benefit from having shown there, but there has been a woeful lack of visitors, sometimes days and days passing when the stall attendants were as numerous as the spectators. The Exhibition remains open to the 6th of January, and those who have not as yet seen it we would strongly advise to pay it a visit.

An advertisement tells its own story. It makes no mistakes, as a traveller might do; and states exactly what the merchant wants to say, neither more nor less. Advertisements are honest and faithful servants.

Honesty in Work.—I hardly know anything more strange than that you recognise honesty in play, and do not in work. In your lightest games you have always some one to see what you call "fair-play." In boxing, you must hit fair; in racing, start fair. Your English watchword is fair-play, your English hatred foul-play. Did it ever strike you that you wanted another watchword also, fair-work, and another hatred also, foul-work? Your prizefighter has some honour in him yet; and so have the men in the ring round him: they will judge him to lose the match by foul hitting. But your prize-merchant gains his match by foul selling, and no one cries against that. You drive a gambler out of the gambling-room who loads dice, but you leave a tradesman in flourishing business who loads scales! For observe, all dishonest dealing is loading scales. What does it matter whether I get short weight, adulterate substance, or dishonest fabric? The fault in the fabric is comparably the worst of the two. Give me short measure of food, and I only lose by you; but give me adulterate food, and I die by you.—*Ruskin.*

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 287.)

Chapter XXVI.—Marbles and Marbling. Rouge Roi.

WE will conclude now that the work has been rubbed in in the manner described, and is dry and ready for glazing. The first process in glazing is to scumble on a little thin white here and there across, and on the large and small patches of grey, and on parts of the brown and red. This must not be done so as to obscure anything, but to give a semi-transparent appearance to these parts; nor must the white be thick, or else the work will be spoiled. When this is done, we mix a thinnish colour with white, ultramarine blue, and a very little black, not sufficient to drown the blue tint, but only to take off its brightness, and put out some flake or Charlton white from the tube ready for working. We now take a swan quill, dip it into the blue-grey tint, and glaze over the parts we intend to be solid white, and while the grey is wet we use the solid white, and put in solid patches on the wet blue, and whilst both are wet, we soften them slightly one into the other, not enough to destroy the solidity of the white, but only to blend the outer edges of it into the grey; this will, if properly done, produce a soft and transparent depth in those parts not covered by the solid white, the contrast solidifying the one, and making the other more transparent; and in order to heighten this effect still more, we use a darker blue-grey (and even black itself sometimes), and blend or soften it into the lighter grey on the outside edges of the white and grey parts. Of course, what we are now saying would be much better understood if the student can study the marble itself. When these whites and greys are satisfactorily done, we mix the following glazing colours:—One made with burnt sienna and Indian red, another with Indian red and black, and one Indian red alone. With these we glaze over portions of the red-brown, cutting up and on to the edges of the greys and whites, the first colour being used on the light parts, and the second and third for the dark parts. By doing this properly, we make it appear as if the reds were floating upon the greys and whites, just as it does in the real marble. The stony effect will be greatly added to if we use some of the lightest glazing colour, both solid and transparent, and put in some small spots or patches upon the greys and solid whites here and there. This not only serves to add to the closeness of the imitation, but gives depth and variety to it, and every touch tells. It will be seen from the foregoing descriptions of our system of imitating this marble that it is exceedingly simple, and we guarantee that if

the process is carried out strictly as we have described it, a successful result will be obtained. There are two other marbles of the same class, or a very similar kind, as Rouge Roi, namely, Rouge Fleuri and St. Remy Blue.

Rouge Fleuri is the same character as Rouge Roi, but having the patches of white and grey very much larger, and the red patches smaller and more broken up, and many of them are spotted with bright red spots on the white and grey. The difference between this marble and Rouge Roi is so slight, that it may be done in exactly the same manner, bearing in mind what we have said above, as to the difference in character of the two.

St. Remy Marble.

As we have before said, this marble is of the same series as Rouge Roi, and is named from the place at which it is found, St. Remy, in the grand Duchy of Luxemburg, but it differs from the Rouge proper in the fact, that the colour of the reds are brighter, and the grey parts predominate; and the reds are in consequence more broken up and interspersed with the greys. Another difference is that the veined parts of the grey as before described are more numerous and more pronounced than they are in the Rouge, and in fact these form the distinguishing feature of this marble. It is a very useful marble for many purposes. We have used it for pilasters, stiles to panels, dados, and many other places. We remember going over the Palace of St. Cloud, in France, some forty years ago, and have a vivid remembrance of the dados, and door frames, and architraves in the painting galleries being all done in imitation of this marble, and right well it looked.

The method of imitating this marble is as nearly as possible that of the Rouge Roi, but we have invariably painted it on a light grey ground, having a bluish tinge stippled. We take a feather and a thin tint of colour made with ultramarine blue and white, and go over the whole of the work with this, dipping the feather into thin black occasionally. We now take the crumpled paper, dip it into the black and blue, and go over great part of the work, using the rag as before described. We then use the stiff fitch and colour to form the curled and flowing veins we have spoken of. When this is done, we dip the feather into flat white, and go over the whole, running across the veins and with them, and softening or blending the white into the other wet colours; many very excellent effects may be thus obtained. When these are dry we mix up a solid colour, made from Indian red, ultramarine blue, and white, the red to predominate. Another colour also made from Indian red, with yellow ochre added. Both of these must be of a much lighter tint than those used for the Rouge. We now use the crumpled paper, or a piece of rag, or cloth, dipping this into the colour, and dab or press it upon the work, enclosing the veined parts or any portion of the grey underwork of a good character that may have been accidentally formed by the previous process. When we have gone over the work with the solid colours, we take a fitch or swan quill brush and connect the small patches of colour left by the rag or paper, working them up in very irregular forms round the veined parts, leaving large and small portions of the grey underwork without any of the red upon them, and while the solid reds are wet we use the crumpled paper and press it against them. This will take off the surface colour in places, revealing the underwork, and will also put on minute portions of the colour in other places, enhancing the effect and putting in a lot of work that could not be got any other way. When the whole is dry, we scumble with the white, and put in the pure solid white exactly as we do in the Rouge Roi marble and then glaze with the solid reds as before described. A very faithful imitation may be made by this method. We have omited to point out that these marbles Rouge Roi, and St. Remy, as well as the Rouge Fleuri, have a decided run or flow of the veins and patches in one direction. In bearing in mind what we have said as to the reds appearing to flow or float upon the grey underwork, it will be found that the reds and greys all have a decided appearance of having at one time been in a fluid or semi-fluid state, and in that condition to have moved or been moved by some unknown influence as water flows, and although the character of the marbles are so different, we should suppose that these have been under the same or similar influence to those of the Breche marbles. They all bear evidence of this fluidity and capability of movement, and therefore in imitating them we shall always be safe in giving a character of movement to our work, and we shall then most nearly approach to nature.

(To be continued.)

*EVERY DAY ART.**

It is a characteristic of the age we live in that there are few men of eminence in any profession, trade, or calling, but what in one form or other, have committed themselves to print. Had the old Hebrew seer have lived in these days, he would not have had to exclaim, "O! that mine enemy would write a book." The difficulty would be to have restrained him from it. There are books and books. Books that, when we have read them, we wonder why the author ever wrote them; and books that each perusal only endears to us, and we take to again and again, till we grow to love them.

The work at present under notice is in no sense a great work—it does not pretend to be—it is simply the utterances of a well-experienced artist, who gives us his thoughts and ideas on Decorative Art as applied to the house, in a gossipy, chatty form that is always pleasant to read, because the author has always something to say worth reading. The book is not primarily written for technical readers—though there is much in it that a technical reader will find of interest and of use—but for the large and rapidly increasing circle of readers who "dabble" in "the Arts not fine."

Though this is apparently the class for whom the book is intended, it in no wise gives countenance to the position which these *dilettanti* would have us believe they occupy, but rather by its robust outspokenness, must have administered a severe shock to the self complacency of all such self-constituted oracles.

In these days of "Æstheticism" (a more ill-treated word does not exist in our language), everybody discourses on Art, and it is the shibboleth of certain circles; yet when we come to fairly diagnose this apparent diffusion of Art knowledge, it in most cases, resolves itself into the silly jargon of fashionable sets. At such a time, then, the appearance of a book

* "Short Essays on the Arts not Fine," by Lewis Foreman Day. 7s. 6d. B. T. Batsford, 62, High Holborn, W.C.

which invites the general reader by its avoidance of technicalities interesting only to the student, or craftsman, and yet which, throughout its entirety, works on the principles of truth and common sense, cannot fail to give an impetus in the right direction, to the study of decorative arts and its concomitants. A great deal of the matter contained in the book has appeared in the pages of the *British Architect* or in the *Magazine of Art*, but, of course, in its present form it is much handier for reference. Mr. Day may claim the distinction of having formed a style, a position of which he may be proud. He has taken the old Greek work as his key note, and used it, so to speak—to play his own tunes. All Mr. Day's work has a strong bias towards the classical, and yet it is in no respect a copy. This is the right use to put the old styles to, only so very few can do it. The advice the author gives is sound and practical, and travels on lines that experience has over again and again justified. Our space will not admit of a lengthy notice; there is, however, a great deal in the book that is well worth reading and acting upon, and again there are also parts that we consider superfluous and besides the mark; notably the tirade against the decorators, on page 166 and following pages, and the little denunciation against graining and marbling could well have been spared. The question has been thrashed out *ad nauseum*, and the weakness of the position of those who, with Mr. Day and others, condemn it *in toto* is apparent when they begin to "hedge" on veneer and sundry other equally reprehensible systems. We rather agree with our author when he says "We have to beware of bigotry." "The truth, the whole truth and nothing but the truth is a fiction of the law," and again, "if we speak without prejudice, we must admit that it is so very difficult to define the limits of what is allowable." The whole question resolves itself into this, What is expedient? and that is a question to be decided by individuals. There is a very interesting chapter on colour, but whilst we would defer largely to Mr. Day's dictum as to form, we cannot accept his teachings as to colour. We saw, some time ago, a job where Mr. Day had full scope in the decorations, and whilst we found much therein admirable in line and form, we question the colouring very much. The quietness had a tendency to "washiness," and had there been a more liberal use of secondaries and occasionally primaries, the result would have been more successful. However, these are personal opinions. We can thoroughly commend the work as one well worth having at hand for reference, and for furnishing a judicious hint when required. It is beautifully got up and admirably illustrated.

REVIEWS.

Egypt and the Egyptians have been so prominently before the public the last few months, and we are afraid, are likely to continue to be, that any work which deals with the land of "the silent Nile," is at this juncture sure to be welcome. Messrs. Hildesheimer and Faulkner, of Jewin Street, who are so well known as fine art publishers, have just published a work entitled "Nile Sketches," being facsimiles, produced in chromo-lithography, of paintings from the gifted pencil of Carl Werner.

The illustrations are twenty-four in number, and are produced in a style that leaves nothing to be desired. Each illustration is a work of art, though some are necessarily more interesting than others; the atmospheric effects are especially good, and are quite equal to anything that Roberts ever did. No. 2, "The Tombs of the Kalifs at Cairo," is simply splendid; the eye roams over miles of desert until it is lost in the distant horizon, against which the mosques and minarets of some city are faintly seen. "The Tombs" are in the immediate foreground, and stand out in sharp relief against the blue sky. Camels laden with merchandise traverse the road immediately at the foot of the rock on which the building stands. No. "A Street Scene in Cairo," is a picture of Egyptian life true to nature; the light, the figures, and the building are cleverly reproduced. No. "Bazaar in Girjeh," is another representative picture of Egyptian customs, whilst "The Ruins of the Temple at Carnac," and "Court of of the Medmet Habu Temple," are exquisite as pictures. Of another class, but displaying the versatility and artistic capacity of Mr. Werner's powers, are a "A Money Broker," sitting at the door of his shop, and "A Nubian Child." These two we consider the gems of the book. The pictures are accompanied by very interesting letterpress, descriptive of the scenes represented and of the customs and manners of the Egyptians. We owe so much to this people, the founders of the arts and sciences, that any onewho adds to our knowledge of them either by pen or pencil, may be regarded as conferring a benefit on his kind. The work is splendidly mounted, and is quite an *article de luxe*. Its price is £5 5s.

We have received the first number of a new American illustrated journal, *The Decorator and Furnisher*, published in the Empire City, which, want of space prevents our noticing in this issue. Every movement of this kind has our cordial sympathy, and we heartily wish the new journal good speed.

THE "JOURNAL OF DECORATIVE ART"

SECOND ANNUAL

Prize Scheme, Exhibition, and Competition,

APRIL, 1883.

In our advertising columns we reproduce the full prospectus of the Prize Scheme for this year, and we invite all intending competitors to send in their names at the earliest convenient date, as the 1st of February is the limit of time assigned for receiving entries; by a clerical error in our last, it was made to appear that January 1st was the date, such is not the case, but the sooner the applications for space are sent in the better. From what we have incidentally heard and seen we shall have a very good display, but our English friends must look to their weapons, as from beyond the Tweed we hear of great determination to carry the Prizes across the Border.

ANSWERS TO CORRESPONDENTS RELATING TO THE PRIZE SCHEME.

F. L., London, N.W.—We don't see any reason for barring out iron panels, as the award will be made on the merits of the work itself, and not on the smoothness of the finish, though that is a point that should not be disregarded.

D. Mc.A., Glasgow.—Granites will *not* be admitted as marbles.

H. M., Fishguard.—We don't think machine planed panels would be good enough. We have applied to a cabinet maker who does good work, and he is prepared to supply panels made out of picked stuff 42in. by 14in. for 3s. each. We append his name and address, but would suggest your getting them done in your own locality if possible, as the carriage, added to the cost of the panels, would augment it considerably. The address is Mr. Burman, cabinet maker, Lucy Street, City Road, Manchester.

A Testimonial.—We have much pleasure in submitting to our readers a copy of a letter received from a Master Painter, to whom we sent a proof of the sheet of letters which appears in our current number.—"Accept my best thanks for proof of Letters; I am marvellously pleased with them. I am sure that every practical painter, and especially every sign writer, will find them of eminent service to them in their daily calling. Both in form and as studies of colouring, they are perfect. I have never seen anything to equal them, although for many years I have bought any and every thing pertaining to my business I could get."

TRADE INTELLIGENCE.

A GOOD EXAMPLE.—We publish a letter in our advertising columns from a subscriber in Oban, Scotland, of which we are proud, as it represents the kind interest which many of our subscribers have evinced on our behalf, and we take this opportunity to express to all who have sent us good wishes for our success in 1883, our sense of their kindness and our determination to deserve it.

THE New Year brings with it as a matter of course new designs in Wall Papers, as well as other things. We are still on the path of progress, and as year by year passes, we find a gradual elimination of those atrocities, that a short time ago were more the rule than the exception, but which now, we rejoice to think, are undergoing the happy despatch of painless extinction. These marvels of chromatic and linear combinations still linger on in some centres, but they are gradually being relegated to a well-deserved oblivion; and a few years more they will, we hope, belong—like the Dodo—to an extinct species.

Mr. A. J. DUFF, of 49, Bread Street, has for some years bestowed special attention to the producing of "Tapestry" Papers; and in his books for the season 1883, will be found a choice selection of these handsome goods. Mr. Duff is prepared to send pattern books to all respectable tradesmen who apply for them and furnish references; and in addition to the books sent out, Mr. Duff has a few special books which he, for special purposes, *lends* to customers. These embrace the entire range of the goods which Mr. Duff produces, and are undoubtedly as fine a collection of high-class goods as we have seen for some time. Mr. Duff does not neglect the "bread and cheese" of the trade, and has a good selection of block goods and single prints, which cannot fail to have a large sale; indeed, the trade booked forward for delivery in January and February, is of a most satisfactory description. Flocke l goods are a branch of the trade that Mr. Duff cultivates, and his range of patterns are at once both choice and generally useful.

Messrs. CUNNINGTON & Co., of Park Walk, Chelsea, have identified themselves with the now well known "Crystal Damask," and "Frosted Gold Papers." We recently inspected Messrs. Cunnington & Co's patterns for the ensuing season, and were much gratified at the tasteful assortment of goods which they are showing. Amongst the Crystal Damasks and Frosted Golds, some very decorative effects are to be met with, and a number of Single Print Block goods are excellent both in design and colour. Messrs. Cunnington & Co.'s Flock Papers are worth more than a passing notice, and to those who like Flock Papers, we can with confidence advise them to try Messrs. Cunnington's manufactures.

Messrs. JOHN LINE & SON'S books are just to hand, and from the judicious selection of goods which they contain, we can give a strong recommendation to the trade to possess them. Each season makes the fact more apparent that block goods, except for papers of the highest class have seen their best days; and when we look at some of the beautiful effects obtained by the machine, at a cost of not more than one half the old block goods, we cannot wonder at their subsidiary position, and the public favour that the machine goods have won for themselves. Of Messrs. Line & Son's patterns we can specially commend 8270, 8267, 8258, 8254; 8244 good for frieze purposes, as is also 8232; 8173 very good and cheap; 8227 and 8148 for staircase purposes, are both good; 9464-5, 9473, 9481, 4960, 9527, and 9577, each and all of the numbers enumerated are excellent value for money. Messrs. Line & Son's give the trade liberal discounts and treatment. We would draw attention to the excellent Testimonial to the virtue and value of Cannon's Concentrated Size, which is contained in Messrs. Line & Son's advertisement. We were ourselves among the first, if not the first, to publicly draw the attention of the trade to the value of this excellent material, and what we said two years ago, subsequent experience has only strengthened and confirmed—it is the very best size before the public.

Messrs. WILKINS & ELLIS, of the Derby Paper Staining Works, principally cultivate a machine trade, and are well known in the Midland district. Their book for the season 1883 is a well varied one, and contains some very tasteful and cheap goods. Nos. 18423, a wild flower design; 20403, design with the rose as the *motif*; 60409, apple blossom; 24416, marsh mallow, and 60416-66422 are all patterns that will hang well and yield good results for a very nominal outlay.

IN consequence of the rapid growth of the business hitherto conducted under the name of The Sanitary Paint Company, it has been decided to increase the capital of the firm, and form it into a company under the title of "Griffiths, Berdoe, and Company, Limited," with a capital of £100,000, in 10,000 shares of £10 each. Not only is this extension most gratifying to the original firm, but even more satisfactory are the numerous and flattering testimonials that Messrs. Griffiths, Berdoe, and Company have received as to the excellent quality of their varnishes and enamels, and their now well-known Griffiths' Patent White.



THE Papiér Mâché Company, of Wellington Street, Strand, are just introducing something new in the way of finger plates, which are very admirable in the depth and boldness of their relief. The strength of this material ought to readily commend it to the favour of the public. The plates in question can be bronzed, gilt, or treated in many different ways at the discretion of the decorator. To those members of the trade who have not already sent for the company's catalogue we would suggest the expenditure of 1s. or 1s. 6d., as the case may be, as a well invested sum. The company make many things that lend themselves to decorators' use.

THE painting trade in Manchester and district has been very quiet indeed during the past month, most of the shops complaining of slackness, and any number of men are to be had. The prospects for next year are good, but so it has been for several years past, and "hope deferred maketh the heart sick"; yet we must not abandon the hope that the good time is coming. The year just gone was like the mirage in the desert, it had a prospect fair to look upon in its youth, but, alas! its maturity was one of unfulfilled pledges.

Messrs. L. Smith & Co. have just been thoroughly remodelling their business premises, in order to meet more adequately the demands of their moulding trade. Messrs. L. S. & Co. keep one of the largest stocks in Room and Picture mouldings in the country, and are willing to send terms and specimens to every master painter applying for the same, and furnishing references. The best discounts are offered to the trade.

The Board of the Copal Varnish Co., Limited, whose works are at Egham, has been considerably strengthened lately by the addition of new directors, members of two well-known houses in the paint and colour trade. The products of the company embrace a most varied list of varnishes, including those for carriage builders, decorators, stoving varnishes, and every description of varnish used in different industries. The reputation of the company's manufactures stands very high, and with the present increase of enterprise and additional capital the business will probably be well developed. The works of the company at Egham cover a space of about three acres, with a frontage to the river Thames, and the London offices and stores are at Bankside, Southwark.

We are pleased to hear that so great is the demand for "Duresco," that the Silicate Paint Company are compelled to lay down fresh plant in order to keep pace with it. We are glad this is so, as we know of no medium that gives at a comparative low cost such good results. We have heard it denounced by some who have tried it, and invariably, on inquiry, it has turned out that they have used it not in accordance with the printed instructions which accompany each lot, but agreeably with their own ideas of how it should be manipulated. Naturally the result has not been successful; but as we have so strongly recommended "Duresco" in these pages, and we are concerned to impress our readers with the fact that we do not commend anything but what we first test and prove, we wish them to understand that by careful attention to the printed instructions they can produce effects at a cost incomparably small to the public, and yet leave themselves a good margin of profit.

Messrs. F. Walton and Co., of Sunbury, had a well-assorted show of their wall covering at the recent exhibition at the Polytechnic, Liverpool. These were a number of screens painted and decorated by different master painters in Liverpool. Some showed great taste, and others were examples of how it should *not* be done. The first pair of screens were exhibited by Mr. W. H. Abbot. No. 1 was good till we reached the dado, which was spoilt by the attempt to do too much. No. 2 was a very excellent specimen. Messrs. G. H. Morton and Son's pair of screens were both good in taste. Those shown by Messrs. A. White and Son were good, but the dado to one was spoilt from the same cause as was Mr. Abbott's, a desire to make too much of it. Mr. Kerr's door suffered from being too glossy; had the panels been left dead or a semi-gloss, the effect would have been much better. The mulberry leaf pattern was very well treated, as was also the frieze to it. We don't like the treatment of the Adams's screen; it is over done. Messrs. Sunderland and Bruce's exhibit was crudely coloured. The general exhibition was a very indifferent one.

Smoke Abatement.—We are informed that Messrs. Smith, Elder, and Co. have undertaken the publication of the reports of the Smoke Abatement Committees of London and Manchester, for the year 1882, which includes the whole of the Tests of Heating and Cooking apparatus, Fuels and Furnace appliances. Numerous illustrations of apparatus, tables of results, and chemical report on Composition of Gases given off from domestic grates and stoves, by Professor W. Chandler Roberts, F.R.S. are added; also reports of the Testing Engineer, Mr. D. K. Clark, M. Inst. C. E., explaining the relative efficiency and economy of Kitcheners, Stoves, and Open Grates. The Committee have admitted reports on the methods of avoiding Smoke, and on the distribution of heat in rooms from different descriptions of grates, that the volume may be useful to the general public as well as to manufacturers and inventors of heating appliances, and we have no doubt it will prove a unique and valuable work.

ANSWERS TO CORRESPONDENTS.

Much Wenlock.—We know of no size that can be laid on the work you name which would be thinner than oil or Japanese gold size when laid on with a pencil. Any varnish size will act in exactly the same manner as the oil size. We have put gold on work in conjunction with inlaid woods, and have done it in the same manner as the inlay, as follows: after the wood inlay has been finished and varnished, we have gilded the parts required with isinglass size, same as gilding on glass. We now take a pencil and Brunswick black and paint in the lines and ornament with it. When this is dry, we wash off the superfluous gold with a sponge or cotton-wool and water. Then wash off the Brunswick black thoroughly with turps. The gold will be left clean and bright, without any perceptible projection about the surrounding surface.

J. S. G., Workington.—We have never experienced the difficulty you name, and it is a very general practice to wash off the Brunswick black or japan, after embossing glass, with turps, or, in fact, any other spirit solvent. We have used *caustic soda* for the purpose, and it answers very well. It may be put upon the glass by pouring or laid on with an old brush or a fine one made with fibre alone, and when it has dissolved, the black can be washed clean off with water. A little white lead rubbed up in the Brunswick black gives additional solidity to the black, and resists the acid better.

G. S. Marlow, Bucks.—Randall's Patent Driers is the very best we can recommend to you. We are pleased at your good opinion.

H. B.—We have never made dead varnish ourselves, but any of our varnish houses would supply it you. Don't ask for "Flatting Varnish," as that misleads. Ask for "dead varnish."

J. C., Congleton.—We can supply you with all the panels and designs you name ready for cutting.

H. S. J., Gravesend, wants a copy of rules for a painter's shop. Any of our friends who have such, if they can spare a copy, we shall be pleased to forward it on to Mr. J.

Inexperienced.—(1) By taking a lump of white lead in oil and putting it into a glass bottle, containing nitric acid, the lead will dissolve, and the barytes sink to the bottom. Another test is to put a piece of the lead on to a piece of tin and hold it over the fire, the oil will evaporate and the lead resolve itself into a blue lead again, whilst the adulteration will form a circle round it. (2) Messrs. Colthurst and Harding, Bristol, will answer this question. (3) Russian tallow mixed with the hot lime will do what you want.

HERALDRY.

In consequence of the extra space given to the description of our Coloured Sheet, we are compelled to let the Chapters on Heraldry stand over till next month.

The mere *number* circulated of a journal is not the only, nor always the best test that should guide an advertiser. Some journals, owing to the peculiar character of their circulation, would be far more profitable to an advertiser with a circulation of *one thousand* than others with a circulation of *ten thousand*. This is particularly the case with class journals.

JOSEPH MASON & CO.,
MANUFACTURERS OF
VARNISHES, PAINTS, & COLOURS,
5, Derwent Street, and Burton Road,
DERBY.

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] FEBRUARY. [PRICE 7d.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

OUR JANUARY SHEET.

WE are desirous of pointing out one or two mistakes made by the lithographic artists in copying our original coloured drawings. The chief of these we alluded to in a foot note last month, viz., the letter S, No. 12. Our colour for the back ground and body of the letter was, as described in text, a dark maroon for the background and a cinnamon or cerise for the letter inside the gold lines. The green of the backgrounds of Nos. 4 and 10 were not so bright and were more harmonious in consequence. The watered back ground also of the M, No. 7, requires to be more distinct than that on the sheet. The blue grounds might be a little darker with advantage. We wish also to point out that the tail of the sunk letter R should have the line carried straight across the light part of it, exactly as the upstroke is done. This is simply a printer's error. We have had numerous letters speaking in high praise of the character and usefulness of the sheet, in fact, there has not been one dissenting voice as to the value of it, as a means of instruction. The only question raised in regard to it has been in reference to the back or cast shade on the backgrounds, and this we have dealt with elsewhere.

OUR PRIZE SCHEME.

INTENDING Competitors are reminded that the time for receiving applications for space forms is now come, and all applications should be sent to the office immediately. Messrs. F. Walton and Co. (Section V., Class F.), inform us that they are prepared to supply screens 9ft. × 1-6ft. ready for decorating for the sum of 30s., and further that they are prepared to pay this same amount back for them after the close of the exhibition.

We desire to say a word or two to the competitors as to the packing of the panels, particularly the grained and marbled specimens. We would suggest the following as the best method of sending them,—Get a box the same size as the panels, inside measurement, then at each end place ribs of wood half-an-inch square and covered with wash leather just the distance apart to admit of the panels being slid in tolerably tight, they are thus prevented being knocked about in transit. We would also suggest screws instead of nails in all cases, as they are more easily undone, and can be put away and repacked with greater facility. If our friends will please mark their packages by stripes, or in some way that the different parts can be readily distinguished, we will do all we can to see that the works sent in in competition are carefully repacked and returned to their destination.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

(ALL RIGHTS RESERVED.)

(CHAPTER II.—SIGN WRITING (ILLUSTRATED).

SIGNBOARDS having become a necessity for the due and efficient carrying on of our business, we may (before passing on to the strictly technical part of the subject) profitably spend a short time and appropriate a small share of our space to the consideration of what a written sign ought to be, and what it ought not to be.

In putting up a signboard outside our business premises or elsewhere, we have a definite object in view—namely, to let the public know what is our business; what we sell, or what we do; what business or profession we belong to; and which of the thousand and one wants or necessities of the human family we are prepared to supply.

The object and purpose, therefore, being to supply information to the public, it will be evident to everyone that this object will be best attained if we make our letters as distinct and readable as possible so that he who runs may read, and except this be the case the purpose for which the sign was written will not be fully obtained. This does not necessarily exclude the use of all but plain letters, although it does require that all the letters used should be plainly readable. Therefore it follows, as a matter of course, that a sign should be legible, and capable of being easily read by all classes, and the letters well defined and properly spaced in relation one to the other. The different lines of letters, when there are more than one, should be well contrasted in size, which will give to each line additional emphasis and distinctness; and, when it is possible, each line of letters should be of a different type. As a matter of course, it is understood that large letters read better from a distance than small ones; but even this fact is often neutralised by the large letters being overcrowded and condensed, until it is often difficult to read them at all. In this case a smaller letter, properly spaced, will read at a greater distance than the larger one. This arises from the fact that closely-written letters will appear still closer the greater the distance we are from them;

but when they are properly spaced, although they will still look closer at a distance than near, they will not become confused like the former. We see, therefore, that a sign, to be what it ought to be, requires to have the letters of a good readable type, and placed or spaced so as not to crowd one letter upon another as we so often see them; and that when there are several lines of letters on the same board, each line should be different to the others, either in size or form, thus the one making the other more distinct and easily read by the force of contrast. On the other hand, we may set it down as a fundamental rule of sign writing, that a sign should *not* be overcrowded with words, but should be as concise and comprehensive as the nature of the case will allow. Many signs are stultified by this fact alone, as people have neither the time nor inclination to stop to read a sign if it has too much matter upon it. That the letters themselves should not be crowded. That the letters used should not be of such a character as to create any difficulty to any person in the reading of them. A sign of this kind—while unfortunately too common in our streets—most certainly defeats the purpose for which it is used.

We may, then, with certainty lay down a set of rules for our guidance in practising the art of sign-writing which, if faithfully observed, will be useful and beneficial, and enable us to avoid many errors which even practised sign-writers are apt to fall into.

Rules for Practising Sign-Writing.

Rule 1.—When writing or setting out a sign for business purposes, we should always bear in mind that we are painting an advertisement board, and, as a consequence, we should use only plain, readable types of letter for that purpose, in order that what we do write shall be easily read.

Rule 2.—All the letters of a word should be so regulated or "spaced" as to avoid crowding the one on to the other, and thus making the whole difficult to read.

Rule 3.—The different lines of letters should always contrast with each other, either in size or shape, as we thus give greater distinctness and effect to each line.

Rule 4.—In setting out a business sign, the name of the person and his business should appear the most prominent feature of the whole, and the other words kept subordinate. [Note.—This rule we shall illustrate further on.]

Rule 5.—We should never commence nor end a line of letters on a signboard with such words as, of, and, but; but should arrange for them to come in between the larger and more important lines of letters. This rule does not of course apply on church tablets or notice boards, which are covered with small letters, but is a safe and necessary rule on all business signs, which should be read at a glance.

Rule 6.—When raised or shaded letters are used, care must be taken in the setting out of the letters, to allow for the extra space this will require. If we neglect this precaution we produce an over-crowded effect, causing confusion.

Rule 7.—The thick and thin strokes of a line of letters must be kept of a uniform thickness throughout. The simplest means to effect this will be pointed out in another portion of our subject.

Rule 8.—Except a line of letters are in italics, or purposely drawn on the slant, every care should be observed to keep them perfectly vertical.*

Rule 9.—We should always endeavour to finish off the letters sharp, square, and correct in the lines, the ends of the serifs square, and the curves true.†

Rule 10.—Before commencing to set out a sign, we should make sure that the inscription or matter we have to put upon it is correctly spelt, punctuated, and arranged, and a decision arrived at as to what lines shall be the most prominent and read most plainly.‡

Rule 11.—Each line of letters should begin and end at an equal distance from each side of the board.

Our Tinted Sheet of Alphabets.

The Sheet of Alphabets we issue this month are specially designed to give to our subscribers some useful lessons in light and shade, as applied to the raising and blocking of letters. We have taken four of the letters from our January sheet of large coloured letters, in order to show the proper blocking and shading of every letter of the alphabet. The usual plan adopted hitherto by writers on this subject has been to give an example of one or two letters with most elaborate descriptions of the geometrical and perspective rules for doing them, and these are nearly all in the ordinary printer's types, which are not the best examples for a sign-writer to copy, but if they were, the student is left to puzzle out the whole of the rest of the alphabet for himself, which, in the majority of cases, practically shuts the door upon him instead of furnishing him with the exact kind of information he requires. We have adopted the opposite plan, and give the whole of the alphabet raised and shaded in a finished form, so that he will be able to practise from them and thus acquire a thorough knowledge not only of the best forms of letters but also of the most correct and diversified examples of the raising and shading of them. For it is not to be supposed but that there are a large number of individuals who have not the necessary knowledge of drawing and perspective required to enable them to form these letters themselves; but having them correctly pourtrayed always before them they will be enabled to acquire, by practice, the exact form each line should take, and when once this is learned there is no fear of its being forgotten.

* For nothing shows the unskilfulness of the workman so clearly as making what should be upright lines, some tumbling one way and some another; and yet how much of it do we see about.

† Nothing contributes so much to the beauty and pleasantness of the work as this. It is always a proof of careful and good work. On the other hand, nothing condemns work sooner than such a slovenly, slipshod, careless way of doing it, and yet with practice it is quite as easy, and takes as little time to do the good as to do the slovenly work.

‡ We have seen many blunders perpetrated in this matter which have not been noticed until the sign has been finished, and have caused much trouble, annoyance, and expense to rectify.

In our first notice of the intention to publish these sheets, we had only intended to issue the January and February sheets, and as a consequence, we had crowded as many alphabets in the February sheet as we could, which very materially interfered with its usefulness and general effect. But when we decided to carry out the subject of sign-writing to its legitimate ending, we also decided to alter, or rather to design, the sheet afresh, and arrange it so as to give the greatest amount of instruction consistent with the object in view and the space at our command. The result has been a decided improvement in our present sheet over the one we at first designed, and we have no doubt our subscribers will appreciate our motives for the change.

The Description of the Alphabets.

The first alphabet on this sheet corresponds with the first letter E on our January sheet. The first two lines of letters are raised and shaded in the ordinary form as practised by the majority of sign-writers, with the exception of the fact that the back or cast shadow does not start (as is not an uncommon practice) from the front edge of the serif, but a little below as if it came from the back edge; this gives a better effect to the work, but the one is quite as admissible as the other. As we have said elsewhere we are not bound by any strict rules in the shading of letters; in fact, strict rules, if adhered to, would create confusion instead of increasing the legibility of the actual form of the letters. The third line of this alphabet differs in a slight degree from the other line, inasmuch as the light is represented as falling upon the letters from a point more directly over them, and not so much on the sides as on the first two; that would cause the shadows to be deeper or broader under the horizontal parts of the letter than upon the vertical or upright portions as here shown.

Our second alphabet corresponds with the sunk letter N on the January sheet, and is placed here for the reasons before mentioned—viz., to give the student a faithful copy of every letter, thus enabling him to copy and commit them to memory. The two top lines are extra shaded to enhance the effect, but the bottom line is simply plain shaded. The third alphabet is founded on the letter E No. 8, on the January sheet, and is here shown in three different aspects of light and shade. The first line is intended to appear as resting on a ledge or flat surface, consequently there is no shadow underneath the bottom of the letters. The light is here supposed to strike the letters very nearly full on the sides. In that case the shadows would be as here shown. The light on this line comes from the right hand as we stand looking at it, and as a natural consequence of the blocking being on the opposite or left side, the light cannot touch anywhere but the tops and upper sides of the bottoms, and therefore the greater part of the blocking is in shadow, the cast shadow going beyond that on the side the opposite to the light, thus differing from the first alphabet, which has the raised blocking on the light side and the shadows on the opposite one. The next line of letters is blocked on the same side as the first line, but in this case the light is supposed to strike the letters vertically, that is, to fall direct on the top of them, and thus the shadows would be all underneath. This is a very effective and simple style of shading. In the third line of letters the light falls upon the letters as near as possible on the left sides, and as a consequence the shadows are wide upon that side, only having a line of shadow at the bottom. We have purposely left the description of the shading on the blocks or thick edges of these letters until we had come to the last shaded alphabet in order to give more prominence to the lesson on light and shade as here exemplified. It will be observed that the light on the first line comes from the right, and we have the greater part of the thick edges in shade, but the second line has the light coming from above, and falling direct on the tops of them; now this would cause the shadow to fall down upon the sides of the blocking quite as low as the cast shadow does on the background. This is exactly how it would be if this were a real projecting letter, for although there may be some dispute as to the cast shadows, there can be none as regards the shadows upon the blocks. But what we want more particularly to point out, and what is so often overlooked or not understood is, the fact that the shadow on the raised blocking should correspond in depth or width and be in line with the cast shadows. This will be thoroughly understood if we look at the second line of this alphabet; on these the light shading on the blocking is on the same line as those on the background. A projecting letter in the same position as to the light would have the shadows so disposed. We have elsewhere said that the shadows on the blocking should be carried past the angles of the blocks, as is done in all our examples, and that they should meet the cast shadows. This is as easily done as left undone, but it is worth doing as it adds materially to the effect. Now these will seem to be little things to many persons who do not take the trouble to think the matter out for themselves, but it is in these very little points that the experienced workman differs from the inexperienced and unskilful one. And not only is this the case with sign writing but it applies to every branch of the arts. Turner, the great painter, used to produce extraordinary effects by using the ends of his fingers, and sometimes the broad part of his thumb was brought into requisition as a brush to paint with; but then he knew what he was doing, what effect he wanted to produce, and if one tool did not satisfy him he tried another, and thus gained experience, and produced wonderful effects. But the knowledge taught by experience was at the back of it all, or else the painting with the finger and thumb would only have resulted in a mere smudge. And so it is even with the shading of letters; if we have a thorough knowledge gained by experience of the different ways of shading we shall be able to shade letters in whatever position they may be placed. Our object in giving these different examples of light and shade is to give the young student the benefit of our practical experience, so as to guide and help him by copying them to gain a thorough knowledge of them, thus he will start in the race with correct ideas of the form and position each should occupy,

*

and acquire a fund of technical knowledge, sure to be of service to him if he uses his advantages as he ought.

The last alphabet on the sheet is of the same character as the M, No. 9, on the coloured sheet. We have not here shown the ornamental background as it would have been too small to have been of any use. The letter itself, while being of a very ornamental character, is also a very readable and useful one for many purposes, and will lend itself to a great variety of treatment besides that here shown. This letter, and others of a similar character, should always have a broad outline around it, in order to define its form; being flat, the outline gives more distinctness to it and thus renders it more useful.

(To be continued.)

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES ENGLISH AND FOREIGN.

(Continued from page 281, Vol. II.)

CHAPTER XXIV.

FIG. 152.—Or, an Elephant's Head, erased, proper. The elephant, as an emblem of strength and sagacity, was borne by most eastern nations in which it existed, or to which it was imported. Many of those to whom it was originally granted, or by whom it was adopted in Europe, were men who had performed some great action, or had served their country well in the land of the elephant.

*Fig. 153.—Azure, an Escallop Shell, argent. The escallop shell was worn in the hats of the pilgrims and palmers of mediæval days who went to the Holy Land. But it was also in some degree emblematical of St. James the Apostle, who is generally represented as a pilgrim, with a staff, scrip, and wallet, and an escallop shell in his hat or carried in his hand. In Spanish pictures he is represented on a white horse, his harness being studded with escallop shells.

*Fig. 154.—Argent, an Estoile of Six Points, sable. The points are generally twisted or waved, as represented in our illustration.

*Fig. 155.—Gules, a Falcon, belled, or. The falcon is a bird of prey, which has been used from the earliest times in the sport of hawking, and is still so used in portions of the East. Hawking was introduced into England in the fourth century, and was brought out by the Danes. When the Danish king Canute ascended the English throne hawking became very fashionable; in fact, William the Conqueror enacted laws prohibiting any but persons of the highest rank from keeping hawks. The life of a serf, in the eyes of a Norman baron, was considered of less value than that of a buck, hound, or hawk. The great expense attending the keeping of falcons put it beyond the power of any but the wealthy; but no doubt the prohibition laws of the Norman Conqueror had most to do with their use. In the days of John, however, every freeman was allowed to keep eyries of hawks, falcons, and herons in his own woods; not a very valuable privilege, seeing that so few freemen were possessed of woods of their own. In the "Booke of St. Albans," printed in 1481, there were laid down rules for falconing, in which different birds were allotted to different ranks of men. Thus such a species was for kings, and could not be used by any of inferior dignity, and such for princes of the blood, and others for dukes and lords, and so on down to the knave or servant, fifteen different grades in all. Strutt, in his "Sports and Pastimes of the English," gives one or two engravings from very old pictures representing ladies followed by dogs and men running on foot, with the hawks on their fists ready to cast them at the sight of game; indeed, John of Salisbury, who wrote in the thirteenth century, says that the women excelled the men in the knowledge and practice of falconry. Taken altogether, a hunting party, or hawking party, of knights and ladies, mounted on gaily caparisoned horses, with their train of falconers, dogs, bells, &c., must have been a pleasant sight. When the falcon or hawk was cast off it flew in the direction of the game; all its endeavours were to get above it, and to do this it wheeled in a succession of small circles. Sometimes both the hawk and its quarry flew so high as to be lost to sight. When the hawk reached a proper elevation above the game it shot down upon it with all its force and velocity, piercing it with its talons. This descent was technically called the stoop or the swoop. Sometimes when the hawk would swoop down upon a heron the latter would receive it upon its bill and transfix it, and so kill the hawk. Our illustration shows a falcon belled. It was the custom to take the hawks, or falcons, into the field with hoods on their eyes and little bells on their legs, and the sportsman carried a lure, to which the bird had been taught to fly by being regularly fed upon or near it with fresh killed meat. The falconer had a bell fixed on a long pole, and when this bell was rung a well-trained falcon would descend to it from the skies. The importance and popularity of this sport will account for the frequent appearance of this bird as an armorial bearing.

*Fig. 156.—Or, two Fes de Moline in chief, azure, a Fireball in base, sable, bursting, proper. The fes de moline, or millrind, is a piece of iron placed in the millstone, nearly in shape as here represented. The fireball, or bomb, has been mostly granted to generals, naval officers, and military men who have eminently distinguished themselves in the service of their country.

*Fig. 157.—Sable, two Firebrands in saltire, proper.

*Fig. 158.—Per fes, or and azure, a Fish, hauriant, argent.

*Fig. 159.—Sable, a Fleece, or. This bearing has been adopted as the emblem of a celebrated Spanish Order of Knighthood, viz., the Order of the Golden Fleece, and is also born by several municipalities, notably the town of Leeds.

(To be continued.)

* The illustrations to these will be given next month.

ART NOTES.

Mr. Richard Glazier, one of the successful competitors in our last exhibition and competition, started on the 26th instant for a tour through Italy. Mr. Glazier visits, amongst other places, Cannes, Genoa, Florence, Siena, Pisa, Rome, and Venice, and has kindly promised to send us some sketches and notes of his tour; whilst the trip will undoubtedly be one of intense pleasure, it is also to be one of hard work and study, Mr. Glazier having taken a large stock of sketching materials. With Mr. Glazier goes Mr. Holt, a rising master painter, of Rochdale. We shall look forward with interest to Mr. Glazier's contributions.

At the annual meeting of the Cardiff Science and Art Schools, Mr. Gambier Parry, in distributing the prizes, gave utterance to some views of the claims Art has upon us as a people. These were expressed in language which, whilst as graceful, and more forceful, than a deal of the rhodomontade that passes as "Art discourses," was characterised by sound common sense, and placed in their relative positions the causes that have been at work to produce both the ignorance and the revived interest in Art matters which we have witnessed in recent years. Amongst other good things, Mr. Parry said: "In the past our people did not care for ideal Art. But the scene is changing now, and rapidly. Our people are opening their eyes and their hearts to the beauty of their national artists' works. 'Industry and Courage' must be our motto in Art as in everything else. I by no means wish to put Art upon stilts; I by no means wish to put it in a false position of importance. But I believe it is this—it is the thing which is wanted to trim the balance of our national character, to correct its hardness, its coarseness, its vulgarity, and to draw out its finer and not the less great and noble qualities. I look upon it as a great field which we have only half cultivated. I believe that thousands of our workmen have been forced into trades unsuited to them; occupations which were repulsive to them. The capacity for artistic pursuits amongst our people is being developed with a rapidity that is satisfactory to ourselves and surprising to our neighbours. Our Art manufactures have begun to compete successfully with those of the most artistic nations. Our Art schools are turning out accomplished draughtsmen, and scattering widely a general knowledge of Art principles, to the advantage and happiness of our people. If by these means we can improve our cities, clear them of the eyesores of modern vulgarity, and erect monuments more worthy of our times, we shall have gained in the cheerfulness of our people, in our own self-respect, and in the honour of our neighbours."

About the same time, Mr. E. R. Robson, F.S.A., was giving the Leeds Architectural Society advice no less wholesome. Mr. Robson said: "We have entered upon a period of English history when the wants of the many have for ever superseded the luxuries of the few in the aims and efforts of men. In this England of ours to-day, power is passing from the *noblesse* to the masses. Art, if any is to be left at all, must belong to the people, and form part of the people, powerfully influencing by its universality their homes and their lives. If once this be the case, we may be content to let the costly finery and oppressive ugliness which mark the 'drawing-rooms' of the middle classes die a natural death. The mission of the architect is to educate, by the truthful, intentional, rigid houses of the poor, and to ally honest, substantial Art to simple wants." "If in the immediate future Architecture is to be more than a merely curious and interesting form of past history, it must enter largely into the lives of the masses—must rear and decorate their simple homes. He who succeeds best, and without affectation, in producing simple artistic work fit for the humbler domestic life in England does most to discredit the modern shams and petty pretty trumpery which beset us on all sides, and best paves the way for a new era in English architecture, in English life, and in English greatness."

The large empty frame which has excited the curiosity of visitors to the Grosvenor Gallery since the opening of the Exhibition of Mr. Alma Tadema's works has now been filled by his new picture of "Mark Antony and Cleopatra." This will undoubtedly rank among the most famous of his works. It is brilliant in colour and light beyond even Mr. Alma Tadema's wont, and is much more full than usual of dramatic fire and movement. The moment chosen is one a few days later than the affair on the Cydnus. Cleopatra has returned to Egypt, and the love sick Antony has been unable to stay at Tarsus in her absence. She has heard of his coming, and she determines not to meet him in the Locheyas, or palace of the Ptolemies, but to cross his path as if by accident in the middle of the harbour. The spectator is supposed to look towards the north-east, out to sea, between the Pharos on the left hand and the Locheyas on the right, both these being out of the canvas. The vast triremes of the Roman fleet are seen in single file, bronze monsters with their strange fin-like ranges of oars. In the foreground Cleopatra, thinly draped in white silk, is borne along under a vast golden canopy, with priests of Isis burning incense and adoring her. Beyond her boat we see the galley of Mark Antony, who rises in a sudden frenzy of passion as her face comes within his ken. The soldiers who are rowing his boat pause, with lifted oars, and the eyes of the lovers meet for an instant. This is the moment which Mr. Alma Tadema has selected.

The painter has expended an abundance of antiquarian and historical research on the picture. His Cleopatra is not merely the lover of Antony; she is the final expression of a purely Greek civilization in its last struggle against Rome, the Eastern world expending all its finesse and fascination to bewilder the brute West. The reconstruction of the triremes is of extraordinary ingenuity, the mechanical difficulties being almost insuperable. Mr. Alma Tadema's ships, however, clumsy and solid as they look, are capable of being manœuvred. In mere painting the clear blue sky and sea, the green bronze of the distant triremes in a mist of early sunlight, the deep gold of the canopy, the ropes of roses which festoon it in every direction, have never been excelled by the artist in any of his previous successes; it may even be held that they have never been equalled. Perhaps the head of Mark Antony is the feature of the picture which will be least admired. The Roman general is not handsome, he is even a little insignificant; the painter has been somewhat trammelled here by his archæology. The head of the young negress in the immediate foreground, clearly projected against the gold curtain, is one of the most exquisite fragments of this great historical picture, which no one should fail to see before it leaves the Grosvenor Gallery for an American collection.

The collection at the Royal Academy of the works of two such notable men as John Linnell and Dante Gabriel Rossetti could not fail to be of more than usual interest to the lover of Art. The difference in the works of the two artists is hardly more striking than the contrast presented by the men themselves. He must be a very old man indeed who antedates Linnell's work, for we find the extraordinary number of seventy-one years covered between his earliest work exhibited (dated 1806) and his latest (dated 1877). It is as a landscape painter that Linnell will be remembered, yet he was near upon fifty years of age before he turned from portrait painting to that branch of art upon which his reputation is built. Linnell's sympathies with Nature were of the keenest and broadest kind. He painted her in all her moods, at noon and at eventide, in the glow of the sun's blaze, and in the solemn hush that preludes the storm. To all her varied manifestations he lent a willing and appreciative mind. Some of his renderings may be questioned from an Art standpoint, but none can doubt his loyalty in depicting Nature as she appeared to him. Exception has been taken to the preponderating place Linnell gave to his skies. Yet, whilst this is true, it is likewise true that some of his skies are amongst the most tender and touching of all his work. No. 4, "The Sere Leaf," painted in 1852-3; 9, "The Last Gleam Before the Storm" (1849); 13, "Opening the Gate" (1850); 22, "The Woodcutters" (1868); 26, "Removing Timber in Autumn," a very early landscape (1808); 56, "Storm in Autumn;" and 82, "On Summer Eve by Haunted Stream" (1853), are amongst the choicest of the paintings exhibited. No. 33, "Quoit Players," is away, in style and treatment, from the bulk of Linnell's work, and characterised by a severer subjection of his fondness for bright effects than we find him generally displaying, and the result is such that we wish he had exercised this restraint on himself a little more frequently. Of Rossetti's work we shall speak in our next number. The exhibition remains open another month.

SCOTCH NOTES.

I HAVE long been an admirer of your useful journal, and was glad therefore to find recently that, in order to increase the number of subscribers in Caledonia, you had sent a smart representative to go over the length and breadth of Scotland to call on the painters and decorators and "compel them to come in." Scotland has about 1,000 employers large and small. Now if we take them as employing on an average five hands each, this makes a grand total of 6,000, masters, men, and boys, and if you secure the half of them it would make a good addition to your list of subscribers. Judging from your past endeavours I feel sure nothing will be wanting on your part to deserve success. I am, as I said before, an admirer of your journal, and will be glad to send you a few jottings regarding the Scotch trade, extracts from which you may insert if you think they will interest your readers.

An old brother brush myself, I travel about a good deal, and wherever I see or hear of anything affecting the trade I shall be pleased to report it.

When I was young—now fifty years ago—I often wished that something after the style of your journal could be got, but there was nothing of the sort then. It is the very thing for young men who wish to rise in their profession, and the old-established employers may also take many "wrinkles" from its pages.

Speaking of old-established employers reminds me of the fact that one of our large Glasgow firms has taken over the good old business of D. Murray and Sons (subscribers of yours, by the way), Paisley. It will lose nothing in the hands of Messrs. C. T. Bowie and Co.

Trade is quiet all over Scotland at present; outside work cannot be done, and there is a scarcity of inside work. The only important interior work I hear of is the Master Painters' Annual Dinners. The Edinburgh meeting was held on the 5th inst., under the able presidency of Bailie Hall, and on the 13th the Associated Master Painters of Scotland met at Dundee. This association is amalgamated with your English builders' society, and during the last misunderstanding with the men in Glasgow the masters received valuable assistance from their English confrères. The Glasgow dinner comes off early next month.

Messrs. Orr Brothers, one of our rising Glasgow firms (this firm is no connection of Mr. J. B. Orr, of the Silicate Paint Company, who I see advertises in your journal), have recently dissolved partnership; they have each sufficient "go" to carry on half a dozen businesses, so that it was evidently a waste of strength for them to remain together. Mr. Wm. Orr has opened new premises. He was Queen's Gold Medallist in the Glasgow School of Art for two successive years, and is looked upon as a clever decorator. Mr. John Orr remains in the old place and also takes over the large Central Station Hotel contract, one of the largest jobs which has been done here for many years; when it gets nearer completion I will have something to say about it. I hope it will turn out as successful a specimen of decorative work as St. Enoch's Station Hotel. The dining, drawing, and coffee rooms were done by Messrs. T. Laurie and Son, and are amongst the finest specimens of the painter's skill to be seen in any public building in Glasgow.

The fifth annual general meeting of the Association of Master Painters in Scotland was held on the 13th inst., in the Queen's Hotel, Dundee. Representatives were present from Edinburgh, Glasgow, Greenock, Inverness, Crieff, and other places. Mr. J. C. B. Bennett, of Glasgow, president of the association, occupied the chair. At the outset, the chairman referred to the loss which the association had sustained during the year by the death of Bailie Drummond, of Dundee, who was one of the promoters of the association, and had always taken a deep interest in its prosperity. The secretary (Mr. W. B. Crawford, writer, Glasgow) read the annual report by the committee, and also his statement as treasurer, both of which were unanimously adopted. The chairman then read an interesting statement, in which he referred to several matters of importance to the association, and among others the expediency of having all apprentices bound by written indenture, of increasing the wages paid to them during the later years of their apprenticeship, and of encouraging and fostering their artistic talents by instituting a system of prizes for exhibits in the various departments of the trade. An interesting discussion followed on these points, and at the close the matter was remitted to the committee for special consideration. The meeting then proceeded to the election of office-bearers and committee, and on the motion of Mr. Nisbet, of Edinburgh, Mr. J. H. Mackay, of Dundee, was elected president for the ensuing year; and on the motion of Mr. Ross, of Inverness, Bailie Hall, of Edinburgh, was elected vice-president. The remaining members of committee were then appointed. It was agreed that the next annual meeting should be held in Edinburgh. A vote of thanks to the retiring president and chairman, proposed by Bailie Mackay, brought the meeting to a close. In the evening the members of the association dined together in the Queen's Hotel.—Yours truly,

Jan., 1883. PETER PALETTEKNIFE.

THE THEORY AND PRACTICE OF LIGHT AND SHADE AS APPLIED TO PROJECTING LETTERS.

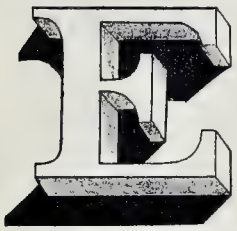


WE had intended to have let what we said in the January number on this subject be sufficient for the purpose of instruction, but as some of our subscribers have found fault with our rendering of the back or cast shadows on some of the letters of our January sheet, we feel ourselves compelled to ventilate the subject further in order to arrive at a clear understanding on the matter. It is an old saying that "lookers on see most of the game," and in proof of this, how very soon we can spy out any defects or mistakes in other people's work, while at the same time be blind to those we ourselves make. It is the old fable of our neighbour's wallet revived. But it is also a most singular fact that either through habit, or custom, we may go on year after year doing things which, while not absolutely wrong in themselves, are at the same time not in strict accordance with theoretical laws, yet are justifiable in practice. On the other hand most of us have experienced how easy it is for us to be blind to, or unconscious of, a palpable mistake of our own, until it is pointed out to us by others. A very remarkable instance of this occurred in our experience. Some thirty years ago we had gilt, embossed, and painted a large plate-glass sign for putting up outside our then business premises, and upon it we had lavished all the skill and experience we possessed. This sign, on account of press of work, was in hand for many months, and of course was seen constantly by workmen, apprentices, friends and visitors during the whole of that time, yet for all that, when it was finished and we were fixing it into its place one of our apprentices called our attention to the fact that we had omitted the letter H from our own name. Now, here is a mistake one would think could not possibly occur, but such was the case.

The objection taken by our correspondents refers to the shadows cast on the ground colours by what are represented to be projecting letters. Had the objectors waited until our present sheet was issued they would have seen that we were fully aware of the apparent mistake—a mistake in so far as that we, without giving the matter due thought, followed the conventional rendering of these shadows. One of our correspondents makes the assertion "that the shadows in this position are impossible." In

this he makes a much greater mistake than the one he complains of. Like many other things, appearing to have no foundation in fact, when thoroughly inquired into it is found to have originally been grounded upon truths which have been lost sight of or forgotten. Now, this is exactly the case with these conventional shadows to letters. If we take a real projecting letter and fix it upon a piece of board on a level with the eye and, having a good light upon it, then stand exactly opposite to it, we shall see the letter as a flat one, having its shadow appearing to start from the front edge, just as it is done in general practice. In this position we do not see the edges of the letter, only the front, consequently there are no perspective lines shown and the projection of the letter is nil. This is likewise the exact position which shadows occupy that are added to flat letters, and is also the reason why they have been used in this form in connection with raised letters, the one being a natural consequence of the other. This accounts also for their all but universal use. It would only be men, like our correspondent, who had well studied the matter, who would ever attempt to paint these shadows any different, for the sufficient reason that the kind of shading alluded to answered every purpose, and gave distinctness and force to the letters.

We will now look at the letters on the board from a point of view in which we can see the full extent of the side or edge upon which the light falls, just as we would paint it. To do this, we must stand at some little distance from the letter on the side upon which the light falls; we shall then find that if we are to discard these conventional shadows, we should throw into shade the greater portion of each letter, and thus interfere very materially with the clearness of its outlines and consequent legibility. The letter here shown is an exact copy of a real wood block letter, having the light falling upon it from the direction shown by the arrow head, which is the usual angle of light from which nearly all letters in imitation of projecting ones are painted. We see that the shadow of the bottom of the letter is very near the width and form in which it is usually painted, but the inner part of the letter, while of the same width as the bottom, is nearly all in shadow, and that the greater part of the edges are covered with it, and very little light falls upon them, where we usually put it. The shadow cast by the upstroke is only partially seen. In this instance there is neither beauty nor symmetry in the shadow, and if we were to adhere strictly to the laws of light and shade, other letters would be worse than this.



Let us take another illustration of the fact that we must conventionalise the raising and shading of letters for signs. If we look at a line of real projecting letters fixed on a facia board and take up our position at one end of the board and almost directly underneath it (as we must do to see the whole of the edges and bottoms of the letters *as we paint them*), we shall see the edges of the letters and the shadows they cast in full, but only of those nearest to us, and if we run our eye along the line of letters we shall see less and less of the shadows as they recede from us, until the projection of the letters completely hide them from our view, excepting the bottom shadow, which would be partially seen, but apparently diminished in width and force. Now, let us move away from underneath the board, and stand some little distance away from it, but directly in front; our point of view will thus be completely altered. We then do not see the edges of the letters directly opposite, but we do see their shadows, and these appear to us to start from the front edge as from a perfectly flat letter, and it is only when we are nearly underneath the letters that we can possibly see the blocks or thick edges of them in perspective *as we paint them*; and as we do not as a rule go underneath the letters to read them we are quite correct in painting their shadows either proceeding from the front or back edge just as it may suit our purpose. At the same time the effect is better, and scientifically more correct, when the shadow comes from the back edge. But to return to our facia board. As we stand in front we see the edges of the letters more or less as they recede from our point of view on each side, but not the bottom edges, and we also see the shadows, but we do not paint them thus. It is said in reference to picture painting that we should paint objects as we see them, and not as they really are. Neither the one or the other of these propositions apply to letter painting, because we do not paint them either as we see them nor as they are, but as they best answer our purpose. The great mistake our critics are making is the supposition—which they take for granted—that we always see the projecting letter in the position as to light and shade, in which we are in the habit of painting them. No greater mistake could be made, as we have abundantly proved. The relative position of each shadow alters according to the point of view from which we see it, which conclusively proves the absolute necessity for a uniform conventional treatment of raised and shaded letters. The generally practised form of shading does not interfere with the shape of the letter, as it would do if they were shaded in strict accordance with the true effects of light and shade, and, in consequence, the popular method which has been sanctioned by long practice, in spite of its antagonism to strict principle, is the only true and safe method of doing the work.



We now give a facsimile sketch of a letter sent by one of our correspondents as an example of true shading. The letter is well drawn, and is, we are sure, done by a practised sign-writer,

but is after all only another example of conventionalism carried out by a master hand. In the first place, if this were a real projecting letter, we should have to stand nearly underneath it (as we have before said) to see the edges as here shown; the result would be that instead of seeing the broad shadow of the upstroke as drawn we should not see it at all, or if we did see any, it would be but a line, and if we saw it as broad as here represented then the whole of the inside of the letter would be in shade, and very little of the inside blocking would be touched by the light. So we see that our critic himself is compelled to resort to a conventional type of shadow or else he would spoil his letters. In sunlight we could not possibly fix the letter so that the light and shade should be confined to the shape shown in this example. We might possibly get it by using a lamp or candle, but of this even we have very grave doubts.

The same correspondent also sends us an Egyptian letter E, in which the blocking (while throwing a deep dark shadow on the background) is itself shaded in graduated shades, having the dark shade up against the edge of the letter, and a lighter tone in contact with the dark cast shadow. This is frequently done, and we have ourselves made use of the same thing to heighten and beautify the work, as will be seen in reference to the two first lines of the first abphabet on our present sheet. But if we are to be guided by the strict rules of light and shade, then this is wrong. For, as we have before pointed out, if the projection of the letter casts its shadow on to the background, then the whole of the edges of that letter which comes under the influence of the shadow cast by the projection must be in shade also, and that shade would not be graduated as shown in this letter, but of one uniform tone. This is incontrovertible; for it is not possible under any conditions of light and shade for the blocking to be thus graduated in conjunction with the dark cast shadow.



We trust our correspondent will accept our criticism as frankly as we have done his. Although we have had more than forty years' experience, we are but learning yet, and are always ready to receive information, and even correction, if given in a friendly spirit. We think, after what we have said on the subject of light and shade, every unprejudiced person will see that if we must preserve the shape of the letters, and set them out to the best advantage for the purpose for which they are used, we are compelled by the conditions to adopt a certain conventionalism in order to produce work of a symmetrical, uniform, and beautiful character. In conclusion, we can only repeat what we have before said, namely, that the sign-writer must perforce work independently of theory or the strict rules of geometry or perspective, and suit his letters to the purpose he uses them for.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 297.)

CHAPTER XXVII.—MARBLES AND MARBLING.

WE will now return to the description of that class of marbles which are best suited for using in large masses on staircases, amongst which are included the granites.

WHITE VEIN MARBLE.

We may take first the familiar white marble, or, more properly, white vein, so much in use for chimney-pieces, table tops, &c. In the working of this marble, whether on a chimney-piece or a wall, special care should be taken to keep the work clean. Two or three shades of crayons should be used—namely, black, and light and dark grey, and the ground should be pure white, stippled, which should be dry and hard before working upon it. The working colour must be stiffish white mixed with pure linseed oil, and rubbed in very bare. In working, the crayons should be used with very little pressure, so as not to make the veins too strong. The veins of this marble are, as a rule, very soft, and require to be blended with the hog-hair softener with great care so as not to obliterate them; for while this marble is veined all over the veins do not take that angular form that the Brêche marbles do, and consequently are not sharp or clearly defined. We need not enter into a description of this marble, as anyone may procure a piece for the purpose of study; but in working we may point out that in marbling a chimney-piece or the stiles of a panel, the effect is very much enhanced if we take care to make the joints of the work more distinctly seen by working the veins of each so that one will be dark and the other which butts against it will be light. This is how it must of necessity be if two pieces of the real marble come together, except they are both of the same shade; but even in that case, the different run of the veins will cause the joint to be seen clearly. In the imitation of any marble, these little apparently unimportant points, when carefully done, add very much to the faithfulness of the copy.

We have often produced very good effects in marbling white vein by first putting in the veins strongly, and when this was dry flatting the whole of it over with thin white, and adding a little solid white here and there. But a still better effect may be produced by first putting in the veins strong, as before, and when this is dry giving the whole a coat of enamel white, such as the Yorkshire Varnish Company's Albarine, or other varnish white, which gives it a brilliant polish or gloss surface, and, of course, adds very much to its beauty, and preserves it, besides getting over the difficulty always hitherto experienced in varnishing white surfaces; but these

varnishes having pure or flake white incorporated with them, obviate and do away with all difficulty in the matter.

BARDIGLIO MARBLE.

Bardiglio marble is a blueish pearly grey marble, broken up over all its surface with black and dark grey veins. It varies very much in depth of colour, ranging from almost white to near black. When it is painted in large masses, the lightest part should be taken as a guide to the general tone of the whole. The darker parts would be too heavy. This is a marble whose character is defined by the peculiarity of its veins. It differs from the white vein and the Brêche marbles, in the veins not being so much blended or so soft as the former, and in not being so sharp and angular as the latter. As a rule, its veins run very fine, and cut the slab up into very small patches, these again being enclosed in larger patches, having broader and blacker veins. A peculiarity of this marble is that some of these large patches are bordered by a broad vein of grey, which is again enclosed with black lines, and this feature pervades the whole of the marble, in many places appearing in irregularly shaped spots and patches unconnected with the other veins. In imitating this marble we paint the ground with flat white, stippled as for all crayon marbles, and mix the working oil colour of a light bluish slate, colour not very far from white—what we may term a pearly grey. When the slab is rubbed in with the oil colour we use a fitch, putting in some dark grey veins of a broad irregular form, also some isolated spots here and there. We then take the black crayon and run a vein at each side of the dark grey veins, forming large patches; these again we cut up into small patches with a few black and dark grey veins, enclosing the small and large spots with it. When this is done, we take a piece of crumpled paper and press it against the work here and there over the black veins. This, while it does not take off the black veins where it touches it, breaks them up a little, and takes off the dark grey in irregular portions, and uncovers a little of the white ground, and this it does in a style that could not be got any other way. We may now also wipe out any parts that will be left white, or, rather, light grey. When this is done, we take the hog-hair softener and carefully soften and blend the whole. This must be carefully done, so as not to make the fine black lines or veins thick and clumsy. The characteristic features of this marble are the fine black veins enclosing the dark grey ones and the isolated spots as before mentioned.

Some portion of the marble is so filled with black veins that the grey patches stand out very strong on what is almost a black ground. When this is dry, it should be scumbled over with the feather, and thin flake white, and carefully softened. When this marble is used for a staircase, it should be worked very light, and of a pearly grey hue. It goes well as a dado, with Sienna or Italian pink for the upper part of the walls, and it is also useful for inlaying in bands.

GRANITES.

Granites, both grey and red, will come under the class of staircase marbles, and are used very largely for that purpose in public institutions, halls, &c., notably on the staircases of the British Museum. For all staircases and corridors which are much used by the public no kind of painting could be better adapted than imitation granite. In appearance it is solid and substantial; in colour it is all that can be desired, and in its power of withstanding hard wear we know of nothing to equal it. There is scarcely any limit to its lasting properties. It has become the fashion with a certain class of writers on Art to affect to sneer at imitation of any kind, and yet they themselves are every day striving to imitate something or other; and, after all, they are only half-hearted in what they say, for the simple reason that their plain common sense tells them that in arguing against imitations they are preaching what they do not practise, and consequently feel that the ground is not firm under their feet, the result being that they are compelled to make admissions which practically sap the foundation of their arguments, and the whole theory crumbles away. We can understand a man saying, "Well, I don't like graining; I prefer plain colour or ornamental work." That is a matter of liking, or, if we will, a matter of taste. But when an Art teacher like Mr. Lewis F. Day exalts his horn and runs a tilt at all imitations, we have some right to expect consistency, but we don't get it; for while he rails in a special chapter against imitations, he is at last compelled to make a compromise, and admit their use in certain cases. And this is the lame and impotent conclusion most writers on the subject have to come to in the end.

As for us, while we give place to no one in our admiration and appreciation of good ornament, we shall continue to advocate and advance to the best of our ability the principles and practise of graining and marbling, feeling assured that the time is not far distant when these aids to Decorative Art will be as much practised and used as they have ever been before. There is a fashion in decoration as in dress.

(To be continued.)

TRADE INTELLIGENCE.

MR. T. C. STOCK, of Victoria Street, Bristol, is well-known to the painting and paperhanging trade as an enterprising and liberal caterer for their special requirements. His new season's pattern book, which, by misadventure, was delayed a week in transit, and reached us too late for notice in our last number, is now before us and we can cordially give it a strong word of recommendation. Mr. Stock's motto of "straight to the mark" may be accepted as expressing the character of his selection, which is put together with an eye to the varying necessities of all classes of customers. Our space will not admit of an extended notice, but we may draw attention *en passant* to the following:—560, a good leaf design, well distributed over the surface of the ground. 559, a bold design of the lily on a gold ground, suitable for a large room, would make a handsome filling. 555, a very good design of the rose, with dado and border based on the same flower only conventionally treated, an excellent dining room paper. 553, a good design, suitable for a general room. 551, a design suitable for a morning room, very cheerful. 550, an excellent design and one we find in many colourings, in all of which it looks well. 538, a design suitable for a dining room, being very warm and comfortable. 532, a purely conventional

design, good in effect. 506, a useful paper for many rooms. 507, a paper on a geometrical basis that would go well as a dado with almost any paper of middle tone. 515, a capital design and well coloured, as are designs 524, 525, and 526. The above are mostly golds, but the designs and colourings are reproduced minus the gold and also in other combinations. The collection is a very tasteful and judiciously selected one, and has, we understand, already secured for itself a very satisfactory amount of public favour. By the way, we may note in passing the elaborate and beautiful label affixed to the pattern book, which we find has been executed by our lithographer, Mr. Kleinertz. The design is a kind of conglomeration of Egyptian ornament, made up of the Lotus, the Ibis, the Bull, the Sphinx, &c, and conveys a very good idea of the general character of Egyptian ornamental forms. The colouring of it is also good.

A LECTURE was recently given before the Balloon Society, at the Royal Aquarium, by Dr. Bartlett, on the invisible dust in the air we breathe. The lecturer described his new and extremely delicate method of detecting and collecting the minute particles of matter which float in the air and are invisible except under the highest powers of the microscope. At the higher elevations the suspended matters found in the air contain minute quantities of iron which were shown to be identical with meteoric iron, and therefore it was claimed as cosmic dust, probably thrown off from some other planet or perhaps derived from comets. The spores of fungoid growths and plants which set up and reproduce fermentation were described as abundant in the air of country places remote from large cities. But the most important use of these delicate investigations is found in testing the air in dwelling-houses, hospitals, churches, and places of public entertainment. Dr. Bartlett finds poisonous organic matter thrown off from the lungs in respiration, living pus cells, arsenic from wall papers and dress fabrics, and large quantities of poisonous white lead dust from the attrition of painted surfaces. He strongly insisted that the use of arsenic should be made penal, and recommended Griffith's patent white (sulphide of zinc), which is quite harmless, instead of the white lead, which occasions so many deaths and so much suffering. Dr. Bartlett is convinced that with the delicate methods of detection now being experimented with, the sources of much disease, and of that lowered condition of vitality which predisposes to every kind of disease will be traced out, and many of the attendant, but hitherto unsuspected, evils may be obviated if not stamped out.

THE announcement that Messrs. Bull & Co., the contractors for the building of the New Law Courts, have had to ask for the forbearance of their creditors, is a very significant comment on the practice of letting important works to the lowest bidders. Everyone will sympathize with Messrs. Bull in their temporary difficulties, for we cannot but think that the authorities will not allow the contractors to be losers by the transaction. A daily contemporary well said that it is both an undesirable and an improper state of things, that the Nation should become possessed of one of the most important structure of the century, at the expense of the financial ruin of the men who built it. Messrs. Bull had to contend against two or three unforeseen drawbacks that must have seriously hampered them in the progress of their work and its financial results.

THE circumstance will not be without its good results, if it draws public attention to the pernicious system which obtains of letting important national and municipal works to the lowest bidder; indeed, the same objection applies right through the whole of the building trade operations, whether for private or public works. The plan has been provocative of all kinds of evil, and should be dealt with by some body of men having a recognised position and a qualification for such work, as for instance—The Royal Institute of British Architects. If this institution took up the subject vigorously, both as a corporate body and the members as individual practitioners, we should soon see a very important modification take place, but as long as the plan has the sanction of architects of position, we dare not hope for any alteration.

JUST before going to press we have received Messrs. Cotterell Brothers', Bristol, pattern book for the season 1883, and the collection, which is a most extensive one, reflects the greatest credit on the taste and judgment of the firm. Unusual care and discrimination has been exercised, not only in what is included, but in what has been kept out. Even amongst the common pulps the same idea has been had in view, to combine with a minimum of cost the maximum of taste. The prices vary from 3¾d. to 7s. 6d. per piece, thus including a range of goods calculated to meet the wants of the general customer. For special work Messrs. Cotterell Brothers will be pleased to lend special stand books, including a very fine collection of high-class papers. Reverting again to the pattern book to hand, No. 29018, is a magnificent design of the rose and honeysuckle, with a boldly designed dado and border to match. 29022, is a design of the lily well distributed, very well adapted for a large sized dining room. 29025, 29027, and 29028, are all good papers of a style we have been made familiar with of late years, whilst the two succeeding patterns are in excellent taste, both as to design and colour. 29038, is a paper that will put up well, and with the addition of the dado shown, will make a very handsome room. 29050, is one of a number of papers printed French width, but English length; this one is Moresque in design, and is admirably suited for dado purposes, or for a room where a subdued effect is required, and where the walls are broken up with pictures or books. Of this same class are 29071, 29087-8, 29118, and others we cannot stay to enumerate, but which are worth consideration. A good selection of single print block goods, of a very useful description, are also to be found here, whilst in the papers running from 9d. to 1s. 6d. per piece, the very best taste is consulted at prices a deal more advantageous to the public than to either decorator or dealer. The fact is that, art is in a transition stage, and the art of the future is, the art of the people. Messrs. Cotterell Brothers evidently recognise this, and are contributing their quota to the solution of the question, by selecting their patterns with good taste and at reasonable prices.

IN response to the enquiry of last month, Messrs. Handley and Wilde, of Burton, have forwarded a set of rules for the workshop, which we print elsewhere for the benefit of our general readers.

A MARGATE CORRESPONDENT sends us a very interesting letter, from which we extract the following. Perhaps some of our readers may know the process alluded to, in which case we should be glad of a description:—Many years ago I was residing a short time in Milan and Turin. A large quantity of work is done there in the shape of marbling on outside panels and pilasters of shop fronts, on the interior of butchers' shops, on the walls of corridors, halls, vestibules, dados, columns and wall surfaces in churches. I remember one church with a groined roof, was marbled all over from bottom to top. It was done in all colours from black, red, green, &c., but mostly white and grey. It is surface work not scagg. To look at it, it appeared to be plastered with Keenes or Parian cement, that the colours were then applied with water, in the manner of fresco painting. When the colours have become impregnated in the cement, the work is polished, apparently by friction. Notwithstanding the fact that the marbling, which was nearly all feather work, was often very badly done, seemingly by the plasterers, it had the most beautiful and finished appearance, owing to the face and natural polish so different from paint and varnish. I tried to find out the process, but failed to do so. On a job which I watched, the men would not work when I looked on. They had a large charcoal fire, and some long large flat irons, but of the process I saw nothing. It does not seem possible that it could be much of a secret, there being much of it done. I have not seen or heard of any of it being done in England, and have always regretted that I did not find out how to do it. The work is so well adapted for English requirements, that I feel certain that, if it was known among architects and others, there would be large demand for it.

THE Silicate Paint Company have rapidly worked up a trade in Scotland, and their Charlton White and Enamels are being largely used by Scotch decorators, as well as shipbuilders and

railway companies, &c., &c. The proprietors, Messrs. J. B. Orr and Co., furnish hard facts to back up this statement. During the year just closed the following work has been done, and is not by any means the most important executed with the company's paints: The Children's Hospital, Glasgow, has been entirely painted with Charlton White and Enamel by Mr. J. F. Edgar, and the architects, Messrs. Campbell, Douglas, and Sellars, and also the committee, have expressed themselves as much pleased with the result. The same materials have been recently used on the Canongate Free Church, Edinburgh, with great satisfaction. The P. and O. Company's steamers, Paramatta and Ballarat, recently built by Messrs. Caird and Co., shipbuilders, Greenock, were done with Charlton White, and the company have secured several large shipbuilders' contracts for their enamels and paints. The Caledonian Railway Company use Charlton White exclusively in their buildings, bridges, and signal departments, and also have it specified for new contracts, instead of white lead. At the extensive foundry of Messrs. Shanks and Co., Barrhead, where 300 enamelled baths per month are turned out, only Charlton White is used, it being found more suitable for stoving, as it stands a greater heat without discoloration, and also polishes better and quicker than white lead. Duresco, another speciality of this firm, is also being largely used in Scotland, and many important jobs have been done with it all over the country. Woodside Parish Church, Glasgow, has been entirely Durescoed by Mr. Hugh McCulloch; this gentleman has also done with Duresco, amongst other jobs, a large private house at Bridge of Weir, and a portion of the Callender Hydropathic Institution. A large block, corner of Renfield Street and Renfield Lane, Glasgow, used as shops and warehouses, has been entirely done by Messrs. Orr Brothers. Messrs. J. and W. Guthrie have also used it largely at the Orphan Cottage Homes, Bridge of Weir, and other contracts. Amongst other important works where Duresco has been employed, we may enumerate the Wellington Palace Halls, Glasgow, done by Mr. J. F. Edgar; a portion of the Glasgow University, executed by Mr. G. W. Williamson; a large new block in High Street, Paisley, by Messrs. D. Murray and Son, of Gilmour Street, in that town; also a portion of the Museum, Bishopton School, and other jobs of old and new work; Culteraller's House, Biggar, by Messrs. Lindsay Brothers. In Alloa, the new Post-office buildings have been done by Messrs. J. and G. Robertson. In Dundee, Messrs. Mackay and Son, and Mr. Hynd, have done several houses with it; and in Montrose the Assembly Hall has just been very successfully decorated by Mr. William Stevenson, Glasgow. The jobs named are only a few of the orders secured by the Company, and they have also many gratifying testimonials from decorators all over the country. As strong advocates and believers in Duresco, we are glad to find that our opinion is confirmed in this practical manner by some of the leading men in the trade in Scotland.

"ASSURANCE" OR JOURNALISTIC ENTERPRISE.—A certain enterprising journal which shall be nameless, some months ago was responsible for the following transaction. A, B, and C, are advertisers in the journal alluded to. In return for some portion of A's advertisements, the proprietors take material to the value of about £19; in return for C's advertisement, material is taken to the value of about £8, yielding a gross sum of near upon £28. A and B are rival firms. The journal now takes this stuff, value £28, to a town far north, and sells it to a customer of B's for *ten pounds sterling*. When B's representative calls on his customer in the hope of doing business, he finds his customer stocked, and at a price considerably below cost of production. The immediate result was that B cancelled his advertisement order and withdrew his name from the pages of the journal in question. We don't know that we should have alluded to it, but the following instructive comment appears in this columns of the identical journal. Taken in connection with the transaction we have described, criticism is superfluous. "There are many ways of doing business, and we now and again hear of firms who pay for advertisements in goods. This is a system far more disastrous to those who do so in many cases than they are sometimes aware of, as such goods are very often sold considerably below invoice prices, and so the firm adopting this method may be very often undersold among customers who would pay them their usual prices. We feel sure that if manufacturers will only consider this question they will come to the conclusion that paying for advertisements in goods is a very unadvisable proceeding. It is weak in principle, and in practice leads to the greatest dissatisfaction sooner or later." We won't for a moment dispute the authority with which our contemporary speaks, as to the disastrous consequences to the advertisers and the dissatisfaction it leads to.

IN our notice last month of the Lincrusta Walton Screens shown at the Polytechnic, Liverpool, we said at the end that "the general exhibition was an indifferent one," this remark referred to the general exhibition and *not* to the Lincrusta exhibits. Our attention has been drawn to the fact that the expression apparently points to Lincrusta, which was not intended.

ANSWERS TO CORRESPONDENTS.

H. C., HUDDERSFIELD.—Your opinion in reference to the cast shadow we have fully discussed elsewhere. Your second objection, which refers to the bottom of the tail of the sunken letter R, is simply a printer's error, as a moment's consideration would have told you that we should never have left it ourselves in that state.

T. W., BRISTOL.—The hard, drying body colour you refer to may be made—dry white lead ground in turps and japanners' gold size, or any quick hard drying varnish, instead of the japanner's. Of course, this may be tinted or stained any colour required. Indian red or oxide of iron mixed in this way makes the best preservative paint for backing of gold work, and is used generally for painting behind silvered glass.

J. F., ROCHDALE.—The answer to your first question was written last month. How it was omitted being printed we cannot tell. We hardly understand your question without details, but we suppose you mean to grain and polish on the bare wood. This may be done as we have before pointed out, by first coating the work over with a filling polish, then graining upon that, and finish with the polish afterwards; or it may be done by sizing and varnishing the work first, then graining upon it, and finishing with varnish. If this is not what you mean please give us a fuller description of your meaning, and we will answer next month. As regards your second question, you can grain the white marble in distemper (although that is not the best way of doing it) rather strong in vein, then give it a coat of varnish white, as you will see it described in the article on Marbles and Marbling in this issue.

W. J., FRANKFORT, KING'S CO., IRELAND.—Your question about flatting varnish is partially answered in our January number, but we may say in addition that the dead flatting varnish must be used upon a gloss varnished ground, for the same reason as flatting is painted upon oil colours, it partially softens the glossy surface which it then lays hold of, and secures the flatting varnish. Many years ago we used a flatting varnish upon a Sienna marble staircase, which was made with turps, beeswax, and whiting, used thin and stippled. The effect was very good, as it deadened the gloss and glare of the varnish without obscuring the colours or the veins, and had a spar like or sparkling effect. This resulted from the stippling which, as a matter of course, left the flat varnish thinner in minute or pin-hole points than in others, and the gloss was partially seen in these points. Of course this kind would not do for any ornamental work. Most varnish manufacturers make two kinds of flatting varnish—the one for using without any other varnish underneath, and the other expressly for using upon well varnished work, to take away the gloss and deaden it.

J. E., RATHKEALE, CO. LIMERICK, IRELAND.—In answer to your question, we do not recommend gold to be varnished except on coach work, as the varnish detracts from its lustre. If the work you name is done in flat or dead colours, then you would only require to give the gold a thin coat of parchment size, or even of isinglass if the other is not obtainable. But if the work must be varnished, in that case, we should varnish first, and put on the gilding afterwards, as in this way we retain the bright-

ness of the gold. When gold is varnished it should be sized first, which prevents the varnish from injuring it so much as it would without it.

J. H., Margate.—Your note both amused and interested us. We don't think things are quite as bad as you paint them. The enamel you name we have found the best thing of its kind—for inside baths and work not exposed to the heat—that we have tried. We are inclined to think that people expect too much from new things. This may be the fault of those who advertise them, for stating they will do what it is unreasonable to expect of them. An enamelled surface prepared right from the foundation with varnish colours is without doubt the best and most durable you can have; but then compare the cost of the processes. We don't think resin has so large a part in the composition of the things you enumerate; speaking without any positive knowledge, we should say there is *none* in the solution you name. We regret you are not going in the competition. If up at the Exhibition shall be pleased to see you.

We refer J. K. S., Bristol, J. W., Hull, J. R., Londonderry, to our article in the present number on "Light and Shade as applied to the Imitation of Projecting Letters."

True Art (Blackheath Hill).—In answer to your first question, we have produced matt and burnish on glass by first coating the part to be matt with a very thin coat of japanner's gold size and turpentine, adding a slight touch of colouring matter, such as raw sienna or yellow; or any of the transparent lakes may be used if other colours are required. Your second question relates to the unequal action of fluoric acid on glass. This will always be the case when it is used upon sheet or crown glass, on account of the inequality of the surface, which causes the acid to lie in greater volume in one place than another. But when used upon plate (British plate) the biting should be equal, except the glass is laid unlevel; in this case there would be a greater depth of acid at the lowest side which would cause it to bite deeper on that part, for it is a singular fact that the greater the depth of the acid and the more keenly it will bite. As we have before stated in answer to a correspondent, a little nitric acid added to the fluoric acid causes the biting to be more regular and even in surface. Your third question, relating to patches of stain appearing through several coats of paint on plastered walls, you will find a good deal of information upon that and kindred subjects in our articles on the cure of damp walls and the drying of new plaster in the first volume of the *Journal of Decorative Art*. We may, however, say here that the subject is a puzzling one from every point of view. Scientific experts say that these patches are caused by the chemical salts contained in the plaster; but if that were the case, how is it that the disease only appears in patches? We should suppose that in the process of mixing the mortar these salts would be equally distributed throughout the whole mass before it is put upon the wall in the shape of plaster; and in that case we would naturally conclude that the whole wall would be discoloured instead of its appearing in patches. A remarkable case of this kind will be found in the *Journal* for March, 1882, page 179, also a scientific analysis of the cause, to which we refer our correspondent. When sea sand is used, or sand from beds inland, but which had been in remote ages the bed of the sea, there would no doubt be a large quantity of salt with it, but whether this is the cause in your case it would be a difficult matter to decide. What we have more especially to deal with is a method of cure. We see the effects, but the cause is beyond our ken. Of methods of cure there are supposed to be many, but it is with this as it is with medicine—what will cure one case will not cure another, although the symptoms may be alike in appearance. We need hardly point out to an experienced person like yourself that patent knotting will sometimes answer, or oxide of iron paint, mixed with quick, hard-drying varnish. A dark-coloured body—colour much darker than the stain of the wall—painted over it on the bare plaster will often overpower and prevent its appearing through it; while a lighter colour, however great the body, will not. The wall being dry, as you say, we would recommend it to be thoroughly warmed with hot irons, and then coated while hot with thin gutta percha dissolved in spirits; or we would paper over it and then coat over with the gutta percha, or even with knotting, and paint upon that. The causes which produce these effects are so obscure and diversified that it is almost an impossibility to arrive at any definite conclusion as to the cure in each case.

B. and S., Plymouth.—You are replied to with others.

Mr. R. Clark, Barnoldswick.—We do not know of any *complete* work upon marbling in which implicit dependence can be placed upon the instructions given. There is a Dutch work, price £2 10s.,* in which some of the specimens are fairly good, but the letterpress instructions are difficult to follow out—being a translation from the Dutch. The instructions given in our journal are the result of the practical experience of the writer, and may be relied upon as being true in every respect. Of course these instructions would be better understood if combined with specimens of the real marbles, or with first-class painted examples, but the heavy cost of the real specimens, and the difficulty experienced in getting them, puts them almost out of the question. We might possibly make some effort to supply first-class painted examples if we could only be first assured of a sufficient number of buyers amongst our subscribers to pay the cost. With regard to your second question, there is the "Art of Flower Painting," by Mrs. W. Duffield (Winsor and Newton, Rathbone Place, London), price 1s., a very good and useful work. "Flower Painting in Water Colours," twenty coloured plates, with instructions, by F. E. Hulme, price 5s. (Cassell, Petter, and Galpin, Ludgate Hill.) "Familiar Wild Flowers," by the same author, monthly parts, 6d.; also "Familiar Garden Flowers," by the same.

* We have a copy of it on sale at the office, £2 5s.

A Subscriber, Tunbridge Wells.—You will find your first question has been asked by another correspondent and answered above. In answer to your second question, to obtain the graduated effect you name, we think your best plan will be to lay in the chocolate in different degrees of tone and while wet stipple the one into the other. An ordinary wall stippler would answer for the first partand a large clean stencil brush would finish into the white. We have found stencil brushes to answer admirably for graduating tints in oil or flat colour. We do not think you would get the effect in distemper as well as in flatting, but we are not quite certain without a trial. We know of no other way you would be so likely to attain your object as the one we have stated.

Book-Keeping.—A correspondent has written us asking for the best system of book-keeping for painters and decorators. As it is impossible to answer such a question in the ordinary way, and as the subject is one of the greatest importance to all engaged in the trade, we have decided that it would not be out of place if we were to give a description how to keep an ordinary set of books sufficient for all the purposes of a painter's business. In doing this we don't profess that the plans and methods we shall describe will be the best—they will have the recommendation of simplicity and are the same as in use by the majority of book-keepers. This we propose to commence with the March number. We shall, therefore, be glad of any suggestions from correspondents that will in any way make clearer, simplify, or improve on the methods we propose to describe, and shall in all cases be pleased to acknowledge such contributions.

Eratta in January Number.—Page 292, for "foundation," read "formation." Answers to Correspondents, page 300, for "Japanese gold size," read "Japanners'."

JOSEPH MASON & CO.,
MANUFACTURERS OF
VARNISHES, PAINTS, & COLOURS,
5, Derwent Street, and Burton Road,
DERBY.



LAMPETIA COMPLAINING TO APOLLO.

MEANTIME LAMPETIA MOUNTS TH AERIAL WAY
AND KINDLES INTO RAGE THE GOD OF DAY.

FROM FLAXMAN'S ILLUSTRATIONS TO THE ODYSSEY

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: ST. JAMES'S SQUARE, MANCHESTER.

MONTHLY.] MARCH. [PRICE 7d.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

THE "JOURNAL OF DECORATIVE ART"

SECOND ANNUAL

Prize Scheme, Exhibition, and Competition,

APRIL 2-16, 1883.

OUR Second Annual Exhibition is now near at hand, and the response to the offers of prizes we are enabled—through the liberality of several well-known firms—to make, has been of a more encouraging nature than last year. We have an all-round number of eighty entries under the different sections. This, we consider, gives promise of a good exhibition if all the friends who have entered send in their work. We trust this will be the case, and we shall not have to record the large discrepancy between entries and exhibits that we had to chronicle last year. As this will be our last opportunity of speaking with the competitors prior to the despatch of their works to London we are wishful to reiterate what we have said in other numbers, and to impress upon competitors the importance of attending to the following points. We do this to facilitate the prompt delivery and unpacking of the different cases, and the preservation of them for returning after the close of the exhibition, and we trust in this to have the co-operation of every exhibitor.

All packages must reach the Agricultural Hall, not later than the 27th inst., carriage paid, and to ensure this country exhibits should be despatched by the 24th inst., at the outside. London exhibitors must send or deliver their parcels to our representative, in the South Gallery of the Agricultural Hall, before six o'clock on Tuesday, the 27th. All packages from the country will be made up and returned immediately on the close of the Exhibition. All London packages must be removed by the evening of Tuesday, the 17th of April. We would again ask our competitors to mark their cases in some distinctive way, and write the motto they adopt on their panels in large characters on their cases. We would throw out a hint to exhibitors sending their parcels by train, that they make their terms with the railway company beforehand so as to minimise the expense. Where screws can be used instead of nails we trust they will be employed. Cheques for the amount of the prizes will be remitted within a day or two of the judges' decision. We trust as many of our subscribers as can make it convenient to attend will do so sometime during the Exhibition. A question has been asked about the drawings in competition for Section VII. Can they be framed? We think it very desirable that they should be; and the drawings also for Section VI, we would suggest them being mounted on stout mill board with holes and tape for suspending. By making and sending two tracings of these designs to Somerset House, the copyright can be secured for the outlay of one shilling, and this we would advise all competitors in Section VI. to do. Attention to the points named in the conditions issued with the prospectus of the competition will tend to smooth the way for those who have the arranging and hanging. Our May issue will contain illustrations of some of the works, and a full description of the exhibition.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

(ALL RIGHTS RESERVED.)

CHAPTER XXVII.—DECORATIVE PROCESSES: EMBOSSED AND FIGURED GLASS.

EMBOSSED Glass, as a means of decoration, has been practised for a great number of years, but it has only been within the last thirty or forty years that its usefulness as a decorative agent has been fully developed and recognised. The quiet and unobtrusive contrast between the dead or ground glass, and the transparent, or semi-transparent ornament, which has, apparently, a slight relief caused by the actual difference of the two surfaces—enables us to use this kind of decoration with all styles of architecture—Gothic, Italian, Greek, and in all and every situation where ornamental glass is used, vestibule doors, staircase windows, entrance doors to banks and public institutions, &c. Letters and inscriptions may be thus written in combination with ornament, to direct or instruct. This kind of work is also extensively used as a permanent blind to the lower parts of office windows in commercial or municipal buildings, and for screens. Beautiful effects may also be produced by gilding and silvering, in combination with embossing, and by the introduction of coloured foils, and imitation gems of coloured glass cut with numerous facets, these being secured behind and placed in portions of the gilded ornament specially

designed for them. Some of the large firms of Birmingham have manufactured some beautiful works in this style. We remember seeing some of these at the Great International Exhibitions of 1851 and 1862, which were perfect gems of art. Opaque panels for the doors of cheffoniers, sideboards, wardrobes, and panels for the saloons of steam vessels, bookcases, &c., may be beautifully decorated by being embossed, and then gilt and coloured.

The embossed ornament may be gilt, and the plain part ground or obscured in the manner hereinafter mentioned. This style has a very chaste and quiet effect, and the obscuring the surface makes a beautiful background in contrast with gold or silver leaf. Finger-plates for doors are very nice done in this style. Many years ago when plate glass was limited in size to small plates, and the old-fashioned chimney or pier glasses, having broad bevilled edges to them, were in vogue, embossed and cut ornament was much used on them as borders and corners, generally done in the Italian style, many of them very beautiful in design, some of them being afterwards silvered and gilt. Examples of these may still be seen in many of our old country mansions, and are eagerly sought after at the present time, the old taste for such productions having, in the usual course of fashion, been revived, and people are content to pay double or treble their original cost for them. Many useful lessons may be derived from the careful study of these old works. The use of embossed glass in the present day is very extensive. There is scarcely a warehouse, a bank, a shipping office, or public building throughout our great towns and cities, in which embossed or ornamental glass in some shape or other is not used; and there is no style of glass ornamentation so well adapted for the purpose, inasmuch as we thus get ornamental, emblematical, and inscriptive designs upon our windows without interfering with the passage of the light, which is of course, a primary consideration in the use of glass, and to which all else should be subordinate.

There are, of course, many other uses to which embossed glass is put besides those before-named, such as public-house window signs, glass fascias for shop fronts, &c. These, as a rule, are executed by the sign writer; but the largest part of this work is done by the regular glass stainer or painter, and the writers and gilders on glass.

Ornament for embossing will require, in the first place, to be designed in strict accordance with the style of the architecture of the building of which it forms a part. How often do we see this condition utterly disregarded—Gothic work put into Italian or Greek woodwork, and *vice versâ*. This does not always arise from want of skill in design or execution; but as the major part of this work is done by designers and workmen regularly employed in the various stained-glass works, and who are most of their time engaged upon the stock canopy work for fitting into almost every stained window manufactured, they, as a natural consequence, acquire a certain amount of Gothicism—if we may use the term—which they stamp upon every kind of ornament they do, and if they attempt to design an ornament in any other style, cannot help but impart a Gothic character to it. And it is a singular fact that men who, as it were, continually run in one groove, are seldom able to break away from the fetters they thus insensibly weave around themselves; and so we get those numerous incongruous examples of ornament of which so many may be seen, not only in embossed glass, but also in the other departments of ornamental art. Again, these mistake in style and in the adaptation of design to the purpose to which it is applied, will and do arise from ignorance, narrowness of idea, and inexperience.

Ornament intended to be embossed upon glass should be designed expressly for that purpose, having always in consideration the pecularities and capabilities of the material upon which the ornament has to be formed, having regard also to the facilities of working. It should never be forgotten that the light has to pass through the ornament, and that the passage of light is the primary condition of the positions and circumstances of the glass, it is so placed for the transmission of light, and, therefore, anything that interferes with that condition is a defect and a mistake. The eye should be able to rest upon the ornamented glass without feeling oppressed or confused, and except this be the case no ornament can be appropriate or considered good. Small and intricate ornaments, cut up with fine lines, have a disturbing effect upon the eye, besides being unsuited to the material. It is true that finely etched ornaments may be correctly executed by this method; but when used for architectural decorations the design should be treated with breadth and freedom. The simpler the ornament the better suited it will be for the purpose. Conventional leaves and flowers, with interlaced lines or scrap ornaments, are well adapted for embossing, and it should always be borne in mind that flat ornament is best suited to the material from every point of view—best adopted for execution, most suitable for the transmission of light, and looks best when done. Cross hatching is used for shading, and, when well and correctly done, is very effective, and is the best way of shading when shading is absolutely necessary to bring out the detail of the ornament, as in coats of arms, in the shading of heraldic figures of men and animals, in which colours are indicated by lines, but cross hatching will require experience and knowledge to do it perfectly, while simple lines will be found to answer every purpose, except in the special cases we have mentioned. The manipulative process of embossing glass is carried out as follows:—Hydrofluoric acid has the peculiar property of dissolving and separating the component parts of ordinary glass, and this acid is the active agent used in embossing. It is needless here, and would serve no purpose, to discuss the method of manufacturing this acid, simply because it is a common article of commerce, manufactured by practical chemists, and may be had from almost every oil and colour man, or chemist and druggist, and therefore the student need not occupy his time in endeavouring to make what he can purchase at a tenth of the cost he would incur in making it himself. By the way, we would remark that a great

part of what would otherwise be really practical works on these subjects, are occupied with useless descriptions of the methods of making articles which can be bought much cheaper, and a great deal better, than any amateur could possibly make them, thus leading the student to waste valuable time which might be much better employed. All branches of decorative arts were at one time a much more laborious and difficult study than they are now; one reason being that the secrets of the manufacturing of various chemical substances and mixtures used in the arts were the property of the masters of this or that particular trade or profession, and these secrets were handed down from master to pupil, and from father to son, as most valuable possessions, to be guarded and preserved with jealous care and secresy. This state of things is now happily changed; it is true there are still manufacturing trade secrets which are guarded with as much care as in the olden times, notably in the manufacture of varnishes, where each manufacturer has some special method or mixture he keeps exclusively to himself. But of late years so much study and scientific knowledge has been brought to bear, and so many master-minds have devoted their whole time and energies to the invention and discovery of the secrets of chemical science, that we may almost consider that the days of trade secrets have passed away. Manufacturing chemists now supply all the necessary pigments, whether artificial or natural, and those of the best; colours, varnishes, and everything required in the painting and decorating trades are produced in quantities, and of a quality and price with which no amateur can compete.

(To be continued.)

SCOTCH NOTES.

I duly received the February Number of the journal and was, of course, much pleased to see you had given my rambling remarks a place. I never appeared in print before, excepting once when up for sheep-stealing. I then said—"Guilty, my Lord," and my speech was reported in full.

Trade begins to move a little in Scotland now, and both masters and men are glad to have it so. I have no idea how your seasons last, but in Scotland many men are only employed seven or eight months of the year; how they exist the rest of the time may safely be put down as the eighth wonder of the world.

The Glasgow and West of Scotland Master Painters' Association held their annual dinner, in the Bath Hotel, Glasgow, on the 16th inst., Mr. William Orr, president, in the chair, and Messrs. Fletcher and Samuels acted as croupiers. There was a fair attendance of the members; amongst others were Mr. Robert Anderson, secretary, and Mr. Robert Bennett, treasurer of the association; Messrs. Bowie, Chas. Bennett, Bowman, Scott, Mackay, senr., Mackay, junr., McCulloch, Stevenson, Logan, &c., &c.; also Mr. Crawford, secretary of the Master Painters of Scotland, Mr. Hughes, treasurer of the National Association of Master Builders of Great Britain, from Liverpool, Bailie Hall, and Messrs. Muirhead, Clarke, and Melville, from Edinburgh, Mr. J. H. Mackay, president of the Association of Master Painters of Scotland, and Messrs. Hynd and Davie, from Dundee, Mr. Dow, from Perth, and Messrs. Cameron and McNaught, from Greenock. The commercial interest was represented by Mr. Chas. Turner (of Chas. Turner and Son), Mr. Griffin (of Mander Bros.), Mr. McNicol (of Tabor, Trego and Co.), Mr. Duthie (of the Silicate Paint Co.), Mr. Wylie (of Wylie and Lockhead), Mr. Girvan (of Brown and McLaren), Mr. McLaren (of A. McLaren and Co.), Mr. Matthews (of Jas. Stover and Co.), Mr. King (of Alexander, Ferguson and Co.), Mr. Wharrie (of Craig and Rose), Mr. Miller (of Alex. Miller and Co.), Mr. Hurry (of Small and Hurry), &c., &c. The company having done ample justice to the good things laid before them, a long and interesting toast list was then gone through. The card, a most artistic one, was got up by an old and enthusiastic member, and contained clever cartoons of thirty or forty of the leading Scotch decorators, who were represented as climbing the hill to the temple of Fame, the said temple being a huge paint pot inverted, with a hole in the side for the admission of those who having made their money would never require to trouble more with a pot as it should be. The usual loyal toasts having been duly honoured, the toast of "The Association of Master Painters of Scotland" was proposed, Mr. McKay, the president, replied.—In the course of his remarks, he congratulated the trade on the friendly feeling which existed between masters and men, and spoke at considerable length on the marked improvement in the ability and education of the workmen during recent years. The toast of "The Glasgow and West of Scotland Master Painters' Association" was received with enthusiasm. Mr. Crawford then proposed "The National Association of Master Builders of Great Britain," and referred to the great benefit which the Scotch Association had derived through being connected with this association.—Mr. Hughes replied, and gave much interesting information as to the growth and working of his society. Other toasts followed, many songs were capitally sung by the sweet singers of the trade, and a most agreeable evening was spent. I send you one song as a specimen, which proves to a demonstration, that the country which produced Scott, Burns, and Allan Ramsay, is still the home of minstrelsy and poetic genius. The inspired Bard who gave birth to this would blush, were I to immortalize him in the columns of Decorative Art, but history may repeat itself again, and the "great unknown" yet be revealed to an enquiring and anxious nation as a second Sir Walter :—

THE PAINTING TRADE.

BY A LIBELLOUS LUNATIC LAUREATE.

Tune—"A motto for every man."

The Painting trade is a very good trade,
It needs both tact and taste;
With patience a nice little fortune is made,—
It cannot be made in haste.
In haste to get rich, some men make a rush,
But soon they go to the wall;
They may rise again, and try trade to push,
But they seldom get over the fall.
So I advise you, be cautious, awfu' cautious,
Use lots of size, and do the best you can
To make the jobs pay, customers are fashious, *
But if a boy can do the work, oh, never employ a man.

I've oft heard it said there are tricks in the trade,
Such as two coats passing for three;
But although that be so, I should like to know
What harm there can possibly be
In doing the work according to price,—
Oh, never attempt to do more,—
Because if you do, such actions you'll rue
When another name's over your door.
So I advise you, be cautious, awfu' cautious,
Use lots of size, and do the best you can
To make the jobs pay, customers are fashious,
But if a boy can do the work, oh, never employ a man.

The merchants are glad to supply you with stuff,—
Buy one ton and they're sure to send two,
Feeling certain that you have not ordered enough,
They think that's the right thing to do.
With stock to the door, what can you wish more?
Lots of work you all will say;
I hope that may be in eighteen eighty-three,
And the last words I wish to say
Is, I advise you to be cautious, awfu' cautious,
Use lots of size, and do the best you can
To make the job pay, customers are fashious,
But if a boy can do the work, oh, never employ a man.

* Difficult to please.

The operative painters of Glasgow have just made a beginning to what should turn out a good thing. The best men are forming themselves into a Decorative Society; they are to hold monthly meetings at which specimens of decoration and imitation will be shown.

I believe they also contemplate holding an annual exhibition of work executed by the members. It is to be hoped they will persevere in this good work; such a society would do more in one year for the advancement of its members, than trades' unions have ever done. They have elected a capital man as president, viz.: Mr. Joseph Sharp. Mr. Sharp is a thoroughly out and out painter, and has worked his way up from pot cleaning to picture painting. Several of his pictures have been favourably noticed in the Glasgow Fine Art Institute, but he does not confine himself to the studio, and many private houses have been decorated by him. He also did the decorative work of The Royalty Theatre, for Mr. Thos. Fletcher, and the Royal Princess Theatre, for Mr. J. F. Edgar. I see he is very favourably noticed for a prize design in the February number of "Decoration."

An old painting firm, Messrs. Anderson and Carlton, Glasgow, have just dissolved partnership. Mr. Anderson has opened new premises, and Mr. Carlton retains the old place.

Yours truly,

February, 1883. PETER PALETTEKNIFE.

THE opening lecture of the Society for Encouragement of Fine Arts was given last month at the Society's Rooms, 9, Conduit-street, by Mr. Robert W. Edis, F.S.A, on "Art in the House," the chair being taken by Mr. J. Forbes-Robertson. The lecturer insisted that the artistic treatment and arrangement of colouring of wall surfaces, carpets, and hangings, and good form and design in the general fittings and furniture of the house, need not of necessity be more costly than badly-designed papers and tissues, and ill-arranged furniture, and that the commonest articles of daily use might just as well be pretty in form and simple in colouring as ugly and commonplace. At the same time he protested strongly against all crazes and fashions which delighted in washed-out colours in curtains, carpets, and wall coverings, and curious eccentricity of design in furniture. Mr. Edis dwelt on the evil effects of the modern system of covering the whole surface of floors with carpets, under which dirt and dust accumulated, to the detriment of health and cleanliness; the bad mental effect of jarring colours and patterns; and the nervous irritability almost unknowingly excited by incongruous and staring patterns, and uncomfortable and badly-constructed furniture. Mr. Edis condemned as trashy, commonplace, and costly, the sham constructive plaster-work of the ceilings, &c., of the modern houses of our London suburbs, which gave an appearance of finish to generally inferior work and material; while it, at the same time, by offering resting places for dirt and dust, helped to make the rooms stuffy and unhealthy. In speaking of the decorative treatment of different rooms, Mr. Edis contended that in the selection of wall coverings or hangings no strongly marked patterns should be accepted, such as birds seemingly in flight or cherubs holding festoons. He urged the importance of good figure decoration in modern rooms, and thought that no real artistic character could be obtained by mere block printed papers or painted surfaces, and that the painter and sculptor should be brought into more intimate connection with house decoration. He looked forward to the time when the work of our best artists should be seen in the wall decoration of our public buildings, churches, and private houses, much more largely than it is at present. The lecturer then entered briefly into the question of sanitation in the fitting up of the various rooms, pointing out the disadvantages of much of the ordinary furniture, which often was not only exceedingly ill-fitted for its purposes, but, by its general form and shape, tended to hold dirt and dust, and thus, while not only inartistic and unsuitable, became absolutely unhealthy. Mr. Edis condemned the craze for Oriental work of all kinds. He objected to the slavish imitation of examples of ancient art which are made to do duty in modern so-called artistic decoration, and Mr. Edis insisted that true art in the house meant the practical rendering in good taste and pleasant guise of all the absolute necessities and requirements of modern life.

OUR ILLUSTRATIONS.

FOR this month our illustrations consist of one double page, two single pages, taken from Hardman's illustrations, to Homer's "Odyssey," and a double page containing two original designs for panel decoration, embodying floral emblems of Spring and Summer. The two corresponding panels, Autumn and Winter, will next be given. We have thought it better to publish the sheets of alphabets at intervals. We shall thus be able to supply useful ornamental designs to those of our subscribers who are not immediately interested in sign writing.

Our first panel is emblematical of Spring. We have drawn a group of the most favourite spring flowers, such as the poets in all ages loved to sing about.

All seasons of the year have their peculiar charm and the lover of nature will see beauty in all things and at all times. Summer with its sunshine, warmth, and wealth of colour, is beautiful. Autumn, which is still more splendid in its ripe beauty, has great charms, and even Winter—frosty but kindly—has its charms also, but to our thinking, Spring is the most beautiful time of all. The vigorous evidences of life we see on every hand—after the torpor of the winter time—the freshness and beauty of the bursting buds and leaves of trees, the myriads of beautiful flowers springing up in the waysides and hedgerows, in the meadows and pasture fields, in the woodlands, on the moorlands and mountains, by the river and streamlet, give to this season a beauty and a charm which no other time can claim.

The Spring! the Spring! the blithesome Spring,
When wild flowers bloom, and wild birds sing;
Without a withered or waning leaf,
To waken a single thought of grief;
O! well may feeling and fancy cling
To the glad return of blithesome Spring.

Come, thou beautiful blossoming Spring!
And to me thy loveliest flowrets bring.

The humble primrose's bonnie face,
I meet it everywhere.

Springing from its wintry tomb
See the spotless snowdrop peep.

Violets, violets here I bring,
Primroses wet from the woods of spring.

Now in my walk, with sweet surprise
I see the first spring cowslips rise.

The crocus blows before the shrine
At vernal dawn of St. Valentine.

Sweet violets, love's Paradise, that spread
The gracious odours which they couchèd bear.

And thus we might add line upon line from the poets describing the varied beauty of spring flowers, and although the flowers of the greenhouse and garden may surpass them in splendour of colour,

yet, there are no flowers about which so much sentiment and feeling clings, as about the wild flowers of spring. This is no doubt in a great measure owing to their making their appearance at a time when all their surroundings are in contrast to their own fresh beauty, as they come sparkling like gems of light after the dark and bleak winter time. Apart from sentiment and feeling, however, they have a special interest and value for the decorator, as being both in colour and form so admirably adapted to his purpose.

Much of the success of decorative flower painting depends upon the proper, or rather, the most artistic grouping of them; so as not to overcrowd or confuse one flower with another. In painting flowers for decorative purposes, every flower should be defined with sufficient exactness to enable us to tell at a glance what it is.

It is always a safe plan to group the light coloured flowers on one side and the dark ones on the other side. We may by this means give them the effect of roundness just as we see them in an artistically arranged bouquet, and this effect may be got with colour even in a flat treatment. In accordance with this plan we have here placed the primroses and violets and the light and dark crocuses on opposite side. Above the vase and flowers is a small panel emblematical of Music. The treatment of this panel we shall describe further on.

The second panel is emblematical of Summer. In this group we have placed the wild rose and garden rose, the hollyhock, the pink, and forget-me-not.

For the summer season there is of course an almost unlimited supply of emblematical flowers, but we may safely take the rose as the representative flower, and the poets in all ages have sang of it as the typical summer flower.

Summer will spread her roses
O'er mountain and o'er lea.

The rose looks fair, but fairer we it deem,
For that sweet odour which doth in it live.

The dew yet lingers on the grass,
As down the long green lane you pass,
Where o'er the hawthorn's snowy wreath
The woodbine's honied perfumes breathe;
And the wild rose's arching spray
Flaunts to the breeze above your way.

THE WILD ROSE.

Oh, flowret wild,
Drooping with many a glittering tear;
The summer's much beloved child
Thou'rt welcome here.

Volumes might be filled with poetical extracts in honour of the seasons, and the special flowers appropriate to them, but we must leave the sentimental and attend to the practical part of our subject.

*In the small panel over the flowers is a Cupid and rainbow, emblematical of painting. We have designed these panels for flat treatment, feeling that in that form they will be more useful than if they were shaded, and those of our readers who are sufficiently well versed in flower painting and the principles of light and shade, will be able to work them up according to individual fancy.

There are two methods of placing these designs upon the work and executing them afterwards. The first is by pricking and pouncing, and then painting in the flowers, ornaments, &c., and this is the method a highly skilled artist would adopt, because it would afford him the opportunity as he went on of exercising his fancy by putting in here and there a flower, a bud, or a leaf, just as he pleased, and in that case he would not be restricted or bound to work within the lines of the original design. To a skilled flower painter this is the great charm of the work. But for flat treatment and outlining afterwards a stencil is the most widely useful, and as our designs have been drawn with the view of being used on the latter plan, we shall confine our description to it.

As will be seen from their character, these designs are susceptible of a variety of treatment. They might be worked with advantage in gold, with a black outline, on a golden brown or citron ground, in conjunction with other low-toned colours. They may also be painted and shaded in their natural colours as regards the flowers, and the ornaments in subdued pinks, greens, greys, and yellows, and in this case would not require outlining. But the method we would recommend and with which there would be little danger of failure, is the flat treatment with outline, and this we may either do upon a dull cream colour or yellow ground, or upon a ground colour made from Indian red and ultramarine blue added to give it a rich bloom. In naming these two ground colours only we do so to mark the singular fact, that although they are so wide apart, yet, the same colours which we shall describe for use on the one colour of ground will be found equally harmonious when placed upon the other.

In describing the method of working these panels, it will be understood that we do not confine ourselves strictly to everything here set down, as in all cases there will be modifications in colour which will suggest themselves to the workman which he will carry out according to his individual taste; but for those of our readers who have not sufficient confidence in themselves to strike out original ideas, they may safely and confidently rely upon our description of the colouring, &c., producing a truly harmonious whole when finished.

Before proceeding further, we may note that in furtherance of the plan we announced in our December Number, we have arranged these designs so as to be able to supply to those of our subscribers requiring them. The first being a stencil pattern ready for cutting, in which the flowers, vases, ornaments, &c., are all in solid mass, so that each colour can be stencilled in before proceeding to outline and pencil in the detail. The size of the design is 32in. by 9in. The second part is a lithographed outline of all the details of flowers and ornaments, and is the same size as the stencil. These may be used in accordance with the following instructions:—The stencil being cut and placed upon the panel, we can then proceed to lay in the various colours,

* In describing the two panels, Spring and Summer, it will be understood that the description of the colours, &c., of the strictly ornamental parts, and the different vases, as well as the small panels on the upper part of each, will equally apply to the one as to the other.

of which we shall require first, a can of flake white, second, a primrose colour, or a modification of the same, made from white-lemon chrome and vermilion, —or deep Naples yellow alone may be used,—we shall also require a little of this colour, with a touch of Vandyke brown, or burnt umber added; third, a deeper tone of yellow for the cowslips; this may be made from white and a bright yellow ochre, with a slight touch of red added; fourth, a purple tint for the violets, made from ultramarine blue, white, and vermilion, or madder-lake may be used instead of the vermilion; fifth, a similar colour to the last, but lighter, and with a little more blue in it for the right hand crocus; sixth, two or three different shades of neutral green, made from the light Brunswick greens, with sufficient white and Indian red or burnt umber added to neutralise the brightness of the green; seventh, a dull, deep gold colour, made from white, yellow ochre, and umber; eighth, a strongish pink, made from white and vermilion, or madder-lake; ninth, a darkish blue, from ultramarine and white,—this is for portions of the vases, and the background of the small panel with the figure in it; tenth, black,—this is only used on part of the vases.

All these colours should be carefully mixed and kept handy, in pots, and a clean stencil brush used for each colour; the majority of these should be small, so that each colour may be stencilled in without one encroaching upon the other. Small pieces of paper may be used to prevent one colour being stencilled upon another, as described in our articles on Stencils and Stencilling; but for the benefit of those who may not have read the instructions there given, we may say that when putting in small portions of the pattern in different colours, small pieces of paper may be placed on the parts we do not want to touch, and held there with one hand while we stencil the part we want with the colour we are using; these prevent the brush going upon any other section but that we want it to do. We shall also want two larger sized stencil brushes for blending or graduating the colours one with another; a large palette-board, or a clean piece of deal board, to dab the stencil brush on after it is charged with colour, which takes off the superfluous colour that might otherwise, when working, produce ragged edges. Many jobs are spoiled from want of due attention to this matter, for it is always safest to use an almost dry brush, and spend the time in carefully dabbing or rubbing the colour on, than to work with a brush full of colour; the former plan ensures sharp good work, whilst the latter is sure to make bad work.

All being prepared for working, we first put in the primroses, then the cowslips and the light-coloured crocus, on the left of the group, with their proper colours. We then put in the violets and dark crocus with the colours before named. We now use the pink colour and stencil all the tips or ends of the ornaments, also the backs or ends of them where they turn over and shew their undersides. We may now take the dull gold colour and put in the greater part of the long stems of the ornament and the framework of the vase, and the small panel at top; also their supporting ornament.

We may now use the different shades of green, and put in the leaves and grass, and portions of the ornament not previously done. When these are all put in (or before, if the colour sets quick), we take the large stencil brush and blend the one colour into the other on portions of the ornament and leaves; graduating them so that the one colour will blend imperceptibly into the other. This may be done with the greatest ease by using great care in the dabbing with the brush, and keeping it clean and dry, which is effected by rubbing the brush upon a clean rag occasionally.

As we have before said, these colours will be equally harmonious and effective on the two different grounds named, but for our purpose we will take the light ground.

The darker tone of primrose colour described should be placed upon those flowers or portions of them which appear to be underneath the other, or are shaded by them, and also upon those which are placed on the right or darkest side of the group. This must also be done with the different shades of green for the leaves—those which are on the right or shady side with the dark green, and the light on the light side. We thus produce an appearance of roundness without departing from the flat treatment. The whole of the ties should now be filled in with their special colours, and the ornamental parts of the vases and stems be put in with the dark gold colour.

When the work is dry we may proceed to outline the whole, and put in the detail of the flowers and leaves, stems, and ornaments. The inner detail of the flowers and leaves may be put in with a middle shade of brown (burnt umber and Indian red), and the outline with Indian red and black, forming a dark red-brown. This is of course for the work when done on the cream-coloured ground. But when the design is worked on a dark ground, as before described, the outline must be in black, and the inner detail of flowers, &c., may be put in with the ground colour, or with a lighter shade of it. The back-ground of the small panels behind the figures will be best done with azure or sky blue, which may be made from white, ultramarine blue, with a little emerald green added to it; the latter colour giving to the ultramarine blue that peculiar tone so difficult to obtain by any of the ordinary mixtures of blue.

In finishing the flowers in flat tints, that will not preclude us from putting in all the natural colours of the flowers, &c., as the eye or centre of the primrose, which is a light green, and the five-pointed star surrounding the centre is of a dark warm yellow tone or hue; yellow ochre will produce it. The centre spot of the violets will be yellow also. We use these terms for the various parts of the flowers in preference to the botanical names, in order that it may be better understood what we mean. As a matter of course the success or failure of these works will depend in a great measure on the care and taste with which they are done. A strict adherence to the instructions here given will, with practice and experience (which is the result of practice), be sure to produce a successful result.

The treatment of the next panel, Summer, will



ULYSSES DEPARTING FROM LACEDÆMON FOR ITHACA, WITH HIS BRIDE PENELOPE, HER FATHER ICARIUS FOLLOWED, THE CIRCUMSTANTIATING HIS DAUGHTER NOT TO LEAVE HIM, ULYSSES OFFERED HER THE CHOICE OF RETURNING WITH HER FATHER OR GOING WITH HIM, SHE ANSWERED NOTHING BUT COVERED HER FACE WITH HER VEIL

correspond (so far as the ornamental parts are concerned) with the first one, supposing as we do that they will both be painted upon the same door; but should this not be the case, then a different treatment may be used if desirable.

The colour for the cultivated rose should be made from white and madder lake, or may first be painted white, and when dry glazed over with the lake; by working in this way we obtain a richer and purer rose colour than when mixed with white. But even when the rose is painted in of a pink colour, we may then use the lake as a glaze. There is no other colour that will produce the exact tint of the rose like the madder lake.

The wild rose may be left white, with deep yellow and green centre, or may be very lightly glazed to form a very light tint of pink. The hollyhock should be one of the darker kinds, a reddish purple will go well with the others. The blue forget-me-not and the deep reddish yellow of the pinks may be white, with red or purple stripes. The green of the leaves and stems should be put in in different shades, so as to give variety, and some of the leaves may be tipped with pink or red also upon the coil or underside of the leaves and ornament. The tips of the leaves being red, the next colour to it should be a light shade of green; then a darker green; then the dark dull gold colour on the remaining parts of the leaves and stems; these, when blended, the one into the other, produce very elegant and pleasing effects.

In the treatment of the vases and their supports capital effects may be obtained by a judicious use of solid black, blue, and the deep gold colour, and white. Those parts worked upon the drawing with diagonal lines may be put in blue on the large spaces, and black on the smaller ones. The bands, handles, and the ornamental parts, with portions of the base, will be best done with the deep gold colour, but some of the bands which come against the blue, and in between the gold colour bands may be put in with a bluish white. These, when outlined, and the ornamental parts pencilled in with the outline colour, gives admirable effects. The centre stems which connect the whole together and support the various parts, should be the gold colour also.

The figures in the small panels should be white on the blue and outlined with the brown, but if we want to heighten the effect, we may do so by slightly shading them so as to be in slight relief. The shade colour being made from white, ultramarine blue, and vandyke brown, which colours, properly mixed, will form a pure shade colour for white.

In transferring the detail of the design on to the stencilled pattern from the outline drawing, we may do it either by tracing or pouncing, if by the latter the drawing will require to be pricked or perforated along the lines, but if tracing is preferred, then we shall require a coloured tracing paper, which may be made by rubbing over one side of a sheet of common lining paper with dry Indian red, then wiping it off with a rag or cloth, taking care to take away the loose colour, so that it will not smear the work or make a stronger line than we require; or we may make a capital tracing paper for this and other purposes by rubbing the lining paper over with common black lead, same as is used for grates, this should be well rubbed into the paper, then brushed off with the housewife's black lead brush, when it will be ready for use. In placing the detail drawing upon the stencilled work, we place it in its true position, and then secure it with drawing pins at the top. We then place the tracing paper underneath it and secure the whole with more pins. For tracing we use a hard black lead pencil, F is the best, as it slips over the lines without injuring the paper although it is so hard, and makes a fine clear line upon the stencilled pattern previously done, which should, of course, be hard before the tracing is done. If the pattern is pricked and pounced, finely powdered charcoal is the best medium for the purpose, but when the pouncing is done the loose charcoal may be blown off with the mouth or with a common pair of bellows, which will leave a sufficiently distinct impression to work from, and will not injure any colour it may be laid upon. Our space will not admit of our giving detailed directions for painting these designs in the naturalistic style for the flowers, &c., but when we issue the two fellow panels, Autumn and Winter, we may give directions for painting the whole in their natural form and colours.

We omitted to state that these panels may be simply lengthened by adding more stem and leaf to the top part above the small panels, or may be enlarged by the addition of a border and lines.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 309.)

CHAPTER XXVIII.—MARBLES AND MARBLING.—GRANITES.

GRANITES are principally composed of three minerals, quartz, felspar, and mica, united in a confused crystallization, that is, without any regular arrangement of crystals; and although we place them here amongst marbles, they are not strictly marble, except so far as all building stones, capable of receiving a high polish, are marbles. Granite is an igneous rock, hard, compact, and varying in colour from white to flesh colour, grey, red, and brown. A large extent of the earth's surface is covered with granite, and it has been largely used for building purposes in all ages, but is always very expensive, on account of the difficulty of working it. It cannot be sawn like the majority of building stones, with saws, but is first worked with large hammers, and then with pointed chisels. The ancient Egyptians worked it with great

skill. They cut and polished it in a way we cannot excel, if, indeed, we can equal, with all the appliances of modern science, and not content with polishing—they covered some of the blocks with the most delicate and sharply-cut hieroglyphics.

The granites best known for ornamental purposes are the grey Aberdeen granite and the red Peterhead granite, and it is with this latter kind we are more particularly concerned, as it is the colour most used for imitation purposes. There are two processes in use for imitating granite, the first and oldest method being done by splashing or throwing the paint upon the work in minute dots, and the other is effected with the aid of sponges. For producing a close imitation we prefer the latter process, but the two may be combined with advantage. The sponges to be used should be carefully selected, and should be purchased from the large sponge dealers, who sell them at so much the pound, according to the quality of the article; but as the coarsest sponges suit our purpose best, they may be bought at a much cheaper rate than the very fine ones. They should be bought in a dry state, having the sea-sand still in them; in this state we are pretty sure of getting them good, whereas if we buy them in the ordinary way we are very likely to have worthless ones palmed upon us. Those best suited for the work are the very open ones, having large holes in them, and of a tough fibre, which may be tested by pulling—if they tear or come apart easily they are no good, but if we find it very difficult to tear off a bit, we may purchase with safety. While dry and unwashed we cut it into convenient sizes and shapes with a sharp knife. Some of these should have square edges, so as to enable us to get close up to a moulding or fillet, and into corners. When cut they may be well washed through several waters, to get out all the sand and other matter. When they are thoroughly dry we shall be able to see what the exact form is. Some of them may be fit for use in their natural state, but the majority of them will require to be cut and trimmed into shape before using. Some of the holes will require to be enlarged, which may be done in two ways: first by cutting two or more small holes into one, or enlarging them by burning with a red hot wire or piece of iron, or both these means may be used on the same piece of sponge. The object we have in view in the cutting and burning is to get the working face of the sponge into a shape that will leave the colour on the work as near to the form of the various colours assumed on the surface of the granite blocks as possible, and with care and judgment this may be effectually done.

We have found the best method of imitating the red granite to be as follows:—The work should be got up with a white ground, and the working or rubbing-in colour made with the ordinary flatting colour, stained with light red (burnt ochre), to the shade of the middle tint of the granite; venetian red will also answer for the staining colour. The work may now be painted over with this colour and left a little while to set. Before proceeding, we shall require the following colours mixed and placed handy for use, viz.,—drop or ivory black in turps, with a little japanner's gold size mixed with it; (2) a thin mixture of bluish grey; (3) white; (4) a colour of the same tone as the darkest red in the real granite, made with venetian or light red with a very little umber added.

All being ready, we dip a sponge into the black first, then dab it on to a board to take off the superfluous colour; then go over the whole of the work laid in with this, touching it lightly with the sponge, and giving the hand with the sponge a slight twist while it is in contact with the work, and distributing the black as uniformly as possible. We now use another sponge and dip it into the grey colour, and follow on over the black. We then use white in the same way, having a separate sponge for each colour.

We now take a large sponge and dip it into the darkest red (which should be the exact colour of the prevailing tone of the granite), and go over the whole of the work with it, using it freely and with a good body, covering the whole of the work in a sort of irregular regularity, if we may so speak, in order to make it uniform in colour. This portion of the work should be done with an open sponge. Its effect will be—if done properly—not to cover the whole work over, but to put on the colour in an irregular ragged form, that encloses and gives depth to the whole of the previous work, and which appears, and is in fact, underneath the last colour in parts. The blue grey, white, and black, being in a great measure, put the one on the top of the others, produces a great variety of transparent and semi-transparent tints or shades of colour just as it appears in the real stone; and the solid colour last put on contrasts and intensifies the depth of the other colour in consequence of its solidity, which contrasts and heightens the effect of the transparent parts. From a long experience in this matter we can confidently say that we have found no system so effective as the one we have just described. We have done it by first putting in the black and underwork in distemper, but this is not equal to the other plan; simply because in using distempers the colours do not mix and blend when put one upon another as they do in the paint process, consequently there is an absence of that transparency which is the chief feature of the real stone.

The methods of splashing the colours on to the work to imitate granite are various.

One method is to use a short haired pound brush, and dip it into the black, and hold in the left hand a thick stick or piece of wood and strike the brush against it; the concussion will cause the colour to fly out of the brush and in its passage through the air the colour assumes a round form and falls upon the work in round spots, the other colours are put on in the same manner.

Another method is to use a stiff flat tool, something like a hog-hair mottler in shape, but with considerably less bristles in it, this should be three or four inches wide. We then take a flat piece of wood with a strip nailed upon one edge, raised about half an inch above the level of the wood.

We now dip the tool into the colour and then press it against the raised edge so that the bristles will spring over it, and in the act of springing the







W. Sutherland, Invt. & Delt. SUMMER SPRING

PANEL DECORATIONS FOR DOORS.

Specially Designed for this Journal. *(All rights reserved.)*

bristles will throw the colour in spots on to the work. There are hand machines much on a somewhat similar principle to splash the paint upon the work. We have not used any of these and cannot therefore give any opinion as to their merits.

It will be readily perceived that it is not possible to produce that irregular, yet regular, broken form so characteristic of all granites, by the splashing process, but the two may be combined in some cases, and the grey granite may be done in exactly the same manner as that described for the red kind, using the black, white, and shades of grey in the same rotation, matching the colours with the greys of the real stone.

There are a great variety of granites which vary both in colour and in the size of the spots from very large mottling with patches of solid white down to exceedingly small spots. These of course are obtained from different countries and quarries and are called by different names, but the grey and the red are the best known and most generally used of any of them.

(To be continued)

SHORT NOTES ON DECORATIVE ART IN ITALY.

By Richard Glazier.

In the history of art, Italy occupies one of the most prominent positions both in ancient and mediæval times.

Of ancient art, there is much amid the ruins of old Rome and Pompeii to interest and instruct as to the application of ornament to municipal and domestic buildings.

In Pompeii we see many examples of the decorative taste of the ancients, and indeed these are almost the only specimens (with the exception of the painted Pottery,) of painting handed down to us, which may prove of service to our art-workmen in the nineteenth century.

*Sketches and drawings will be given from many of the existing examples of ancient and mediæval art in the museums and the various cities in Italy, showing a few of the decorative qualities of ancient art, and that of the Italian Renaissance.

In Pompeii the decorative arts were held in high esteem, almost every object of use being artistic and the interior of the buildings decorated with Frescoes and Mosaics, some of the latter being especially fine in colour and workmanship.

In judging the art qualities of the Pompeian painting, we have to bear in mind that the earthquake of A.D. 63 overthrew Pompeii, and that the decoration which we now know as Pompeian was the work of the sixteen years between A.D. 63 and 79, when the final destruction of the city took place; so that many of the buildings must have been rapidly rebuilt and decorated during that interval of time.

Most of the Pompeian paintings show a somewhat loose execution, full of fancy, but often sensual in their choice of figure subjects. A few of the smaller paintings display careful drawing and colouring, and give evidence of their Greek origin and workmanship.

Fig. 1 is a sketch from one of the Frescoes from Pompeii in the Naples Museum of a Frieze on a red ground. Fig. 2: A portion of wall painting in the house of the Cæsars in the Palatine at Rome, showing better workmanship than most of the painting from Pompeii. Fig. 3: A painted pillar from Pompeii in the Museum at Naples.

* Those for this month are not to hand from the engravers, and will be given with next month's "Notes."

BOOKKEEPING,

FOR PAINTERS AND DECORATORS.

Bookkeeping is but the recording of business transactions—reduced to method and system—in a set of paper books used expressly for the purpose.

To the merchants of Northern Italy, and from them through the Dutch, we are indebted for the introduction of the system now in common use.

Amongst the truths "stranger than fiction" which exist around us on every hand, we don't generally expect to find anything romantic in such prosaic articles as a set of books. Yet could we but read aright, and see beyond those neatly-written columns and carefully-posted folios of many a good business firm, what a tale they could reveal to us. The romance of the ledger has yet to be written, but no story of recent years contains more of the elements of the romantic than do these hard, matter-of-fact, lists of figures.

Modern bookkeeping has become elevated to a science, and has a variety of systems to adapt itself to the demands of various businesses; but whilst the details are varied the principles remain, in most cases, practically the same.

Bookkeeping is known to experts by two distinguishing titles—single entry and double entry. We don't think we need concern ourselves here with this latter method, as it more particularly appeals to firms who do a very large business, when of course it is almost a necessity, but for an ordinary business, the method known as single entry will suffice. The importance of accurate and careful bookkeeping cannot be too highly stated or overrated. Each class of business demands some special form of books, whilst there are certain books common to them all. For the needs of an ordinary painter's business the following list will, we think, suffice:—

1st. Day Book.	4th. Journal or Account Book.
2nd. Invoice Book.	5th. Cash Book.
3rd. Time Book.	6th. Ledger.

These are the main books required and usually they are made folio size and strongly bound, this is very important as if cheap books are put into use at the end of one or two years they begin to fall to pieces, a most common but a very undesirable procedure.

In addition to the books already named, we would suggest two rough entry books, to be kept in the work shop, which can be used for alternate days, and have the material that goes out entered up to their various jobs, from these, is posted the day book. Another useful book is a paper pattern book.

This serves as a complete record of all the papers hung, and is most useful afterwards for reference.

Mar. 1st. 1883.	Mr. Jones, Ash Villa, Wood Green.	(Space for paper.)	10 pcs. 2/6 4176. Hung by W. Smith. T.C. Stock.*
Mar. 4th. 1883.	Mr. Brown, Oakley, Peckham.	(Space for paper.)	11 pcs. 5/- 3337. Hung by W. Smith. J. Line and Sons.*

* This indicates the name of the manufacturer where the paper was obtained from. Of course the spaces for name, paper, &c., would be much larger than here shown, which is only given for illustration.

All the books must be folioed, that is, each page must be numbered in consecutive order. The purpose of this will be apparent later on. A stock book is also useful for keeping a list of stock as it stands on certain given dates, say the 31st of December of each year. Some firms keep a book for empties, into which is entered the list of empties from each invoice as it comes in, with the amounts charged; and then, when they are returned, a corresponding entry is made on the opposite page, and thus they are balanced. In regard to empties we don't know whether the trade are aware, but it is a common practice for the manufacturer to take off to the dealer in paints at settlement 50 per cent. of the amount charged for them. When this is done, and the empties are paid for, afterwards, if the paint dealer desires to return the empties he gets the second half of the amount remitted, if he does not return them, he only pays the first half. This is a great deal the best and most equitable arrangement, as the manufacturer is thus protected from loss, and the buyer, if he fails to return the packages, only pays their nett value.

(*To be continued.*)

TRADE INTELLIGENCE.

Messrs. Geo. Farmiloe & Sons, of Smithfield, E.C., have long had a reputation amongst plumbers and painters for the extent of their operations and the sterling character of their manufactures. But it requires a personal visit to their premises to form an idea of the magnitude of the business they do. The mere enumeration of the departments is sufficient to show the cosmopolitan character of their business. Oils, paints, colours, varnishes, and brushes under one management, engines, pumps, brewers' machinery and beer engines, with all their varied appurtenances, occupy another department; plumbing materials and fittings of every description form a third branch of the highest moment and value in connection with Messrs Farmiloe's business. We visited their foundry, where many of the fittings are made, and could not but admire the solidity of construction and workman-like finish given to all the things we saw made, and in process of manufacture, and can with the greatest confidence recommend them to the trade. Sanitary ware claims a department to itself; suffice it to say that here are to be seen the most recent and newest appliances for all the many uses they are generally put to. The trade in glass done by the firm is one of the most extensive in London, and is second in importance to no other branch of their business. A walk through the stock rooms is evidence of this. Plate glass, rough and polished, sheet glass and rolled plate, enamelled, flashed and tinted, "cathedral rolled," aggregate into a department of immense magnitude; in addition to this Messrs. Farmiloe do a large business in stained and painted glass, lead lights, both simple and ornate, embossed and brilliant cut, and have a talented staff able to execute work of the most artistic character. The old standing and reputation of the firm is a guarantee that new customers may depend on good treatment.

Holborn Viaduct is gradually being absorbed by manufacturers in steel, iron, or brass, under some one or other of the many forms into which these valuable metals are wrought. Amongst the many well-known firms whose London premises are to be found here none is more worthy of attention and a visit than the spacious rooms occupied by the Coalbrookdale Iron Company. This firm is known the world over for the excellency of its workmanship in iron, and the evidence it gives for keeping abreast with the requirements of the times. Many old firms have receded from the front rank, which at one time they held, through a disposition to rest content with what they have accomplished in the past. Not so with the Coalbrookdale Company; they have adapted the vast resources at their command to the new tastes and the demands of a more cultivated age, as a glance round these show rooms attest. We cannot speak in too high terms of the beauty and refinement of line which many of the chimney-pieces and overmantels on show possess; and would urge on the reader to pay a visit to the rooms himself.

Mr. Fordham, of Curtain Road, E.C., some time ago brought out a new distemper which we desire to make known to the trade on account of the valuable properties it possesses. Mr. Fordham sent us down a sample which we submitted to what may be called a crucial test. One of the advantages claimed for this new distemper is, that it can be used over stained ceilings and will dry without showing the stains. The cornice on which we used the sample sent was a very old one, badly stained, had originally been painted, then, at various times, whitened and limed, and last of all lined with lining paper. There were, therefore, all the elements of a good stainy cornice, and when it was washed off, though we used the new distemper, it was not with very sanguine hopes of a successful result; in this, however, we were pleasantly disappointed, the cornice turning out as "solid as box." One amongst its many advantages is, there is no need to use size with it, thus dispensing with what is an important element of cost in ordinary distemper work. We don't need to further emphasize its value.

Mr. Duff, of Bread-street, has quite renovated the show screens of paper decorations on his premises, and those who can should call in and see them. One or two are perfect gems in the way of good combinations and colouring.

We have received from Messrs. Mander, Bros., of Wolverhampton, a sample set of their new wood stains. These are made up in a powder form in small boxes about the size of an ordinary match box, and have the great recommendation of being extremely portable and economical. The specimens we have seen come out to great advantage, both for their evenness of colour and their depth and transparency. Messrs. Mander, Bros., issue with the stains a very exhaustive and intelligible set of instructions for applying them, with which the dullest man could hardly go wrong.

A very large and important job is now drawing near completion in Manchester. We allude to the new "Grand Hotel." This splendid addition to the hotel accommodation of the city was originally, the warehouse built for and occupied by the brothers Collie, whose disastrous failure about eight years ago was the commencement of a succession of commercial crashes in which, many houses supposed to have their foundations built on rock showed that they had been building on sand only. Ever since that time the building has been lying idle, except for a brief interim, when Lord Beaconsfield's Government occupied it for the purpose of packing hay, for despatch to the East. Recently, however, it has been purchased by a new company and turned into a hotel, a use it was well fitted for. The alterations have been carried out under the direction of Mr. Murgatroyd, and Mr. Harwood has done the plastering and finishing of the decoration, a job of some considerable magnitude.

Much public favour has been extended in Dublin to a suggestion that plumbers be appointed sanitary inspectors, and the argument is that there is no trade more intimately connected with sanitary matters than theirs. It is almost a matter of course that they have a knowledge of sanitation, as every day brings them in contact with defective sewers, badly constructed w.c.'s, imperfectly ventilated houses and offices, &c. It is also proposed that these men should do the inspection of waste water here, as they are well qualified to deal with defective fittings and the consequent waste and damage to houses. If the two duties were combined, the inspection would be done in a better manner than it is by the two policemen now employed, and who are receiving £2 2s. weekly. The City Engineer and Dr. Cameron might examine eligible candidates of the plumbing trade, and appoint the best qualified to vacancies as they occur.

Messrs. Dunning & Morris, of Bolton, we are pleased to hear, have made arrangements to considerably extend and improve their premises in order to keep pace with their increasing business. Messrs. D. & M. have got some very good decorative work in hand at present, which we hope to give a description of at an early date.

THE CITY COMPANIES AND TECHNICAL EDUCATION.—From the *City Press* it appears that 14 companies have contributed in the aggregate the sum of £44,531 to the building fund of the City and Guilds of London Institute, for the Advancement of Technical Education, while 24 companies have subscribed during the last five years to the general work of the institute sums amounting in the whole to £79,862 10s. The Corporation has contributed £4,000, and individual members of companies £205. To the preliminary expenses fund eight companies have contributed £1,160 5s.

THE EMPLOYERS' LIABILITY ACT.—On the 4th of last month at the Bishop Auckland County Court, J. Strachan sued Mr. James Hay, painter, &c., for £25, as damages for injuries received while in his employment. His Honour found for the plaintiff, damages £9 and costs.

GOTHARD V. STATHAM AND OTHERS.—This was an action brought by John Gothard, Pendleton, carpenter and joiner, to recover £100 damages from his employers, Messrs. J. Statham and Sons, builders and contractors, Pendleton, under the provisions of the Employers' Liability Act. Mr. Yates appeared for the plaintiff, and the defendants were represented by Mr. James. On the 20th July last, the plaintiff was engaged on buildings that were being erected by the defendants, when a plank on which he was standing gave way and he fell from a great height to the ground, and sustained severe injuries. He contended that the foreman of the works, named Locke, had not, by reason of his negligence, discovered the weakness of the plank, and that consequently the employers were liable for damages.—The Judge said the question was whether Locke could have discovered more than the plaintiff, who made no complaint about the weakness of the plank.—A carpenter and joiner named Whiteside, who was called on behalf of the plaintiff, stated that when the plank broke it was found to be rotten, but if it had been carefully examined before the accident he did not think its condition would have been discovered.—The Judge: Well, in that case what negligence can you attribute to Locke? I suppose the truth is that this defect was inherent in the plank and came from the tree. You cannot get over this evidence. There will be a nonsuit. A nonsuit was entered accordingly.

ANSWERS TO CORRESPONDENTS.

MR. E. ALGAR, EXETER.—We are glad to see that some of our subscribers are alive to the fact that the art of sign writing does not consist of blocked and shaded letters alone, but that the shape of the letter is of more importance than the mere imitation of raised letters can be. We, as a natural consequence of treating the subject fully (as we have expressed our intention of doing), shall issue a variety of the most useful plain and ornamental letters; the subject would not be complete without them. In our next sheet of alphabets will be given examples of the letters No. 3, 12, and the sunk letter R on the square No. 11, on our January sheet, the rest of the sheet being occupied with an example of letters in perspective and perspective letters, &c.

MR. W. H. TOZER, WELLINGBOROUGH.—We are much obliged to you for the interest you take in the Journal, and also for the specimens of inlaying you have sent us. We have never used the method you describe, and think it a very ingenious and simple method of ornamenting grained papers, and might be used with great advantage for many purposes. We do not understand from your letter that we are at liberty to publish your method, but will have much pleasure in doing so in our next issue if we have your permission.—With regard to your second question, we are sorry to say that we have had no experience of the manufacture of such paper, but we gladly print it here, and shall be very much pleased if any of our subscribers can give an answer to your question.

Our correspondent wishes to know how the paper is prepared which is used for transferring designs somewhat similar to the vitremaine or imitation stained glass process.

HAIR PENCIL, MONTROSE.—We are very much gratified by the hearty and discriminating praise you give in your letter to the sheet of letters we issued in January, and also for your appreciation of the Journal. Your letter came too late to be answered last month, for which we were sorry, as we are always pleased to receive the opinion of thoroughly practical men who have themselves had a large experience. The shaded letter you sent us is decidedly the best and most near to the real shadow of any we have yet had, and we shall refer to it in our May issue, when we shall publish our next sheet of alphabets.

H. A. R., WEYMOUTH.—Our correspondent complains that in working the gold on glass with hot water after gilding, the water remains upon the glass in drops, and thus causes a spotty appearance. We have occasionally found this to be the case, but only when the size or isinglass has been too strong; or when the glass has not been sufficiently upright. In either of these cases the water will lodge in spots; the only remedy is to polish with the cotton wool and keep washing with the hot water until the marks all removed. If there is any perceptible amount of size between the gold and glass, then the spots and leaf joints will be sure to show. The object and purpose of the repeated washings and polishing between, is to remove the size from the front of the gold and thus improve the burnish. When it is properly washed and polished the water should run off the gold when first applied like it does off a duck's back, and it is in this respect that so many failures are made in obtaining a bright and uniform burnish.

APPRENTICE, LEEDS.—Ornament and letters are often stencilled upon gold when gilt upon glass, using Brunswick black or black japan to stencil with. But we think the work our correspondent refers to has been done by the brushing out process which he will find fully described in the *Journal of Decorative Art* for November, 1881, page 268.

T. R., BLACKHEATH HILL.—Our correspondent will find all the information he asks for on flatting, in the *Journal of Decorative Art* for May, 1881.

A. G. M., FORT WILLIAM.—Our correspondent applies to us for our opinion as to the best means of curing some damp walls. The case is so singular that we are induced to publish it here. In the first vol. of the *Journal of Decorative Art* we have treated the subject somewhat extensively, but as it is a matter which most of our subscribers have to grapple with at times, we make no apology for referring to it again. In this special case the house has been enlarged, and what was originally the outside wall is now a division wall between two sets of rooms, and although the alteration was done in 1881, the wall is still damp, so much so that the damp actually strikes on to the ceilings. Our correspondent thinks that this damp is simply the water which was absorbed by the wall during and previous to the alterations, but we can hardly see how that can be, for if the wall had been a new one, built with wet bricks and mortar, the atmosphere of the rooms on each side of it ought to have evaporated and dried it long ago. Our opinion is that the cause of the damp is still in operation, that water from some source still percolates through and through the wall, or it would not still be damp. Here is a case in which the ordinary cures advertised for damp walls are evidently useless. If we are mistaken and the damp in the wall is only that left by a thorough saturation, the cause being stopped, then the only cure is to extract the moisture by the application of heat, as we have described in a former number of this Journal. Since writing the above our attention has been called to the following cure for damp and porous walls, which appeared in the *Builder* of February 17th. We do not of course vouch for the composition being and doing what is here stated, but give it for what it is worth. The plan seems on the face of it to be a good one:—

"DAMP AND POROUS WALLS.—Sir,—I note your correspondent, 'House Agent,' [p. 160, *ante*] writing from Bristol, a neighbourhood suffering in a very large degree from the recent floods, wants to know if there is any cheap method of rendering walls impervious to wet.

"As 'House Agent' very pertinently remarks, this is a very serious matter, and no one, save doctors, has any conception of the amount of illness and death brought about by people inhabiting damp houses. I am glad to be in a position to point out to your correspondent a cheap and absolutely effective remedy, viz., the Hygeian-Rock Building Composition, of which I am the patentee, and if he will put himself in communication with me, I shall be glad to give him particulars of cost, &c.

"My composition has now been before the public for twelve months, during which time it has been extensively used and put to some very severe tests, and has given universal satisfaction. Any walls built upon my system, and with the aid of my composition, I will guarantee to be absolutely impervious to wet or damp of any description, no matter how thin the walls, how porous the bricks, or how bad the mortar; and this can be accomplished without any additional cost, inasmuch as the composition imparts so much additional strength to the walls, that a reduction in their thickness can be made, equivalent in cost to that of the composition.

"I have also perfected a system for applying my composition to existing damp or wet walls, the *modus operandi* being as follows:—In the first place the plaster is removed from the face of the wall, and the joints well raked out; then a cavity for the reception of the composition is formed by means of a specially made 'locked tile,' which is vertically fixed against the wall by means of a temporary cramp, behind which the composition is poured in a hot liquid state, and when cooled and set, which takes place in about five minutes, fixes the tiles, and forms an absolutely impervious lining to the walls, with a honeycombed undercut surface upon which a render of plaster or mastic cement can be placed, and the wall be prepared for decoration within six days from the time of taking off the old plaster; and in this manner any wall, however wet, can be made permanently dry by the introduction of a vertical impervious lining, not exceeding seven-eights of an inch in thickness, which can be applied either internally or externally.—WILLIAM WHITE, No. 3, Westminster-chambers, S.W."

J. COLE, BLACKHEATH HILL.—We will notice your remarks when we issue our next sheet of alphabets, which will be in May.

H.H., EXMOUTH.—Spirits of wine are introduced into isinglass size to clarify it and to neutralise any greasy tendency there may be.—In reference to your second question, we have great cause for complaints against the booksellers in not obtaining and delivering the *Journal* more promptly. It is a common story to us. We are endeavouring to arrange for the *Journal* to be in London at least three or four days before the first of each month, and we hope thus to enable our subscribers to obtain them not later than the 1st or 2nd of the month.

J.D., SOUTH HEYHAM, NORFOLK.—1. You were quite right. 2. This was, as you say, a clerical error. 3. This was entirely a later suggestion of Messrs. W. and Co., and they had sent a large number of circulars out intimating the change before they communicated with us, and the letter apprising us of the alteration came just too late for the January number, and the February number being a little behindhand explains the apparent anomaly of the notice. It would have been much better if intending competitors, on the first announcement of the scheme, had advised us at once of what they considered either too big or too unworkable; we should then have have been able to make any modifications we thought desirable in the interests of the body of competitors, and should have been glad to have done it. If afterwards you desire to dispose of the screens, we have no doubt Messrs. W. & Co. would take them at cost price. We wish you every success. We note your comments on the coloured designs, and shall bear them in mind for future service.

W. F., CAIRO STREET, WARRINGTON.—American walnut is grained in exactly the same manner as any other description of walnut, Italian or French, but is plain in figure. A full description of the best methods of imitating walnut will be found in the *Journal of Decorative Art* for Nov., 1881.

T. S., WOLVERHAMPTON.—The deleterious gases produced by the foul atmosphere of a room will act upon white lead and discolour it. No doubt the difference between the atmosphere of one room and another will produce different effects. Charlton white or Griffith's white will resist these influences.

A.E.H., MALMESBURY.—In answer to your question as to the supplying of imitations of marbles, we have before stated that if a sufficient number of our subscribers would guarantee to take sets, we might possibly be induced to do them or get them done. Personally, we would have liked to have done them ourselves, and found a pleasure in doing so, but after fifty years at the trade, we should find it a difficult matter to give the necessary labour, even if our other work in connection with the journal would admit of it. We are quite aware of the difficulty of forming a correct idea of the marbles by a description without having seen the real stone, and in our instructions and descriptions we have endeavoured to obviate this difficulty so far as we were able.

T.D., HECKMONDWIKE.—The information you ask for in relation to filling up and polishing would occupy some pages. But you will find the various processes fully described in the *Journal of Decorative Art* for July and August, 1881.

SPECIMENS OF MARBLES.—In answer to several correspondents, we have to say that though we have made several attempts to secure these, we have not been successful, the transactions evidently being so small as not to pay the marble masons for their trouble.

CORRESPONDENCE.

"THE LEGITIMATE TRADESMAN."

To the Editor of the Journal of Decorative Art.

SIR,—I have been a subscriber to your Journal, hitherto, from the commencement, but lately I find from experience that your Journal (good in itself) is not unattended with serious drawbacks, thereby undoing the good that it is presumably supposed to be doing to the *Legitimate Tradesman*, in as much as it is giving open instructions, insights, and secrets of the trade to any and every usurper who may feel disposed to take it in. Even in the locality in which I reside I can testify to persons taking in the Journal, acquiring all the information possible out of it, who never served a day's legitimate apprenticeship, and appropriating what ins and outs of the trade they can get to the detriment of the Legitimate Tradesman. I, therefore, repeat that it is an injustice to those like myself who have served a full seven years' apprenticeship to the trade to place facilities at the disposal of all the scum who manage to tumble into the house and sign painting trade, and thereby making, what ought to be the Legitimate Tradesman's right, anybody and everybody's property. I trust, Sir, that you do not consider my remarks out of place or impertinent. I am actuated with no jealous motive, but I do really think it unfair that our trade should be so exposed.—I am, dear sir, yours truly,

A. W.

[We cannot say that we have much sympathy with the position our correspondent takes up, though we deplore as much as he does that improper characters get in the trade. We cannot but think that in making them into better tradesmen our journal is fulfilling a very useful and legitimate purpose. Involuntarily, and no doubt without intending it, our correspondent pays the highest possible compliment to the truth and practical character of the information and instruction given in the journal. No studied eulogy could have stated so plainly the value to the trade of the subject matter it contains.—Ed. "J. of D. A."]

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WINTER

PANEL DECORATIONS FOR DOORS.

AUTUMN

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The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

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MONTHLY.] APRIL. [PRICE 7d.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First, the earnest and intense seizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

IMPORTANT.

REMOVAL OF PREMISES.

IT will be seen by the announcement on the front page of the cover, that we have changed the address of the Head Office of this Journal, which, henceforth will be 15, St. Ann Street, Manchester, instead of 1, St. James's Square. All communications to the Editor, or on business relating to the Journal, must be made to the new address.

THE "JOURNAL OF DECORATIVE ART"

SECOND ANNUAL

Prize Scheme, Exhibition, and Competition,

TO BE HELD

AT THE AGRICULTURAL HALL, LONDON, N.,

APRIL 2–14, 1883.

BY the time that this is in the hands of our readers, the works sent in for competition will have been received and made ready for the adjudicator to award the prizes. The result of the competition and the names of the successful competitors will be looked for with considerable interest on the part of our subscribers in all parts of the world, wherever the *Journal of Decorative Art* is known and read.

We have again been very fortunate in securing as adjudicator a gentleman well known in art circles in London. Last year, Mr. J. G. Crace was kind enough to show his interest in the cause of Decorative Art, by undertaking the office of judge. This year, we are no less fortunate in having the sympathy and co-operation of Mr. G. T. Robinson, F.S.A. Mr. Robinson's acknowledged acquaintance with Decorative Art, both theoretical and practical, is the best guarantee we can offer our competitors, that the awards will be made on the merits of the design. It was necessary, above all things, that the gentleman we asked to accept the office of judge, should be an artist of wide knowledge, and not committed or pledged to any one particular school of ornament. There are several eminent decorators in London, each one of whom is identified more or less with his own special "ism," and such artists would inevitably incline to those designs which approximated the nearest to his own pet school. In the gentleman, who has by consenting to take the office of adjudicator placed both us and our competitors under very great obligations, which we can only faintly discharge by this acknowledgment, we are sure of his freedom from bias towards any one special development of ornamental art, and of an intimate acquaintance with all the various Schools of Decoration. We are sure, therefore, that the decisions of Mr. Robinson will command the confidence of all concerned. Our May issue will contain the full list of competitors and the names of the successful ones, with the different prizes they have won.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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SIGN WRITING (ILLUSTRATED).

CHAPTER III.

IN our February number we laid down a set of rules applicable to, and which must be observed in, the practice of sign writing in order to make good work.

We have now to describe the methods of doing the work. Different men have different ways of getting at their work, and most men of any originality of mind, or who are possessed of any inventive power, adopt some peculiarity or method of working which belongs to themselves exclusively, the same method or style becoming the special mark of their individuality. This is, as we know, the case with the handwriting of every man who can write—no two will be alike; and this is especially the case with picture painters—no two artists will paint alike, neither in method or style, and this is so marked that each painter's work may be distinguished amongst thousands of others. The man, if he is truly an artist, marks or stamps unmistakably upon his work this peculiar sign of his own individuality, and so it is with all branches of the useful arts in which a man's talent and skill has free play. And in the art of sign writing, although as we have before pointed out, it is in a great measure mechanical, yet there is full scope for the exercise of each man's peculiar bias or style in the formation and embellishment of his work.

As we are writing here for the special benefit of the young student, we shall begin at the beginning, and there will be no loss of dignity in older men turning back to practise straight strokes and simple curves. Many persons who dub themselves sign writers have the greatest difficulty in making a straight line or a true curve, and yet without the power of doing this—and doing it correctly—no man can make a good sign writer. We have read somewhere that a celebrated master, the head of one of the great musical colleges on the Continent, would always make his pupils practice incessantly a certain piece of music, simple in its character, but which with all its simplicity contained within itself the very elements of all musical composition. He would keep them repeating the same piece for months, and even years, until they could execute it perfectly. When this had been accomplished, he would say to his pupil, "There, there, that will do. I cannot teach you anything more. You will now be able to execute correctly and at sight the most difficult composition that can be set before you."

Now this is just exactly the case with sign writing. If the young student will practise the making of straight lines and curves—of which all ornament, and indeed all and every combination of forms is composed—until he can do them correctly, and with ease, he will then be able to form any letter in any type. Many sign writers have taught themselves the art by first forming the letters on paper. This is not a bad plan to acquire a knowledge of the shape of the letters, but as the sign writer has to form his letters with a hair pencil and paint, it is better for him to begin at once to practise upon the painted board with pencil and paint; he will thus become habituated to the use of the pencil and rest stick, and acquire the necessary skill to form his letters with freedom and correctness. In addition to this, we would strongly advise the student to adopt a plan which will facilitate his acquirement of the exact form of every kind of letter, and assist him in many other ways besides—a plan which if constantly carried out will do more to give him the necessary freedom of hand and knowledge of form than any other course we are acquainted with.

It has been the habit of most men who have attained an eminent position in the world, to keep a diary, in which they kept a record of anything that came under their observation and that was worth recording in their daily life. Now this is exactly what we would advise the student of sign writing, or indeed in any other department of the decorative arts to do. A blank paged pocket book, or one of the ordinary sketching books, procured for a trifle at the artist colourman's or stationer's (it should be of such a size as to be always convenient to carry in the pocket, both at work and play); in this book the student should make a practice of sketching any letters he may see, scraps of ornament, or anything else likely to be useful to him in his practice. He would find this a most invaluable habit, not only as a help to the acquisition of a knowledge of sign writing, but as a valuable aid in teaching himself how to make a facsimile drawing of anything and everything, and when this knowledge of form and skill of hand is once acquired, there is no limit to its usefulness in any walk of life. Even when only pursued for amusement in leisure hours, it affords an amusement of pure pleasure not surpassed by any other accomplishment. No teaching of the schools can equal this method for giving the student that facility of execution, correctness of line, and freedom from conventionalism so valuable and so necessary to the draughtsman in any line of business in which drawing is a necessity. The advantages of this plan will be evident to the intelligent student, and if, in addition to the sketches he makes, he will add a few words of descriptive matter relating to the subject of his sketch, he will thus form a sketching diary which will be found most valuable to him for reference at any future time.

In practising sign writing, a sign board will be required. This, in the first place, may be of the simplest construction, two or three feet wide and about four feet long. When this is not attainable a single board may be used. This should be made smooth and painted. If there are any knots they should be filled with patent knotting and the board then painted.

We may appropriately take the opportunity here of describing the best methods of painting and getting up sign boards ready for lettering and gilding.

A sign board requires to be as smoothly got up as any other description of painted work, and the clearer the polish or lustre, and the freer from nitts or grit it is, the better the work afterwards put upon it will look. This is especially the case when the letters are gilt. The smoother the surface the brighter and more lustrous will be its burnish. We would, therefore, point out that although there will be some extra labour required to get up the work properly, its appearance, when finished, will amply repay the trouble.

Much might be written upon the best plan of making sign boards so as to withstand the variation of the weather, but although sign writers are directly interested in the question, it is the business of the carpenter or joiner. For our purpose we will suppose that the sign board is made in the best manner, and delivered to us with a smooth level surface. The first thing to do will be to kill the knots, should there be any in it. We may point out that there never should be any in a signboard, it being always a serious defect, for no covering in the way of patent knotting, or glue and red lead, &c., will permit a resinous knot from showing on the surface if exposed to the sun's rays. And the only effectual cure in these cases is to cut the knot out of the wood and let in a piece of sound wood in its place. The board may now be primed. For this purpose we prefer to use any of the dark reds or browns, red oxide, purple, brown, &c., mixed with raw oil. The second and third coats should be brown also, but mixed with one-third turps to two-thirds of oil, having a little liquid driers added to harden it. All the paint used should be carefully strained before being used, and well rubbed down between each coat. If this is not done we are apt to accumulate on the surface of the board a quantity of coarse particles of colour and skins of paint

which are afterwards very difficult to get rid of, and in any case roughen the surface and cause endless trouble which may be easily avoided. Whereas, if proper care is taken a smooth and equal surface will be obtained with the expenditure of one half the time and trouble. We are now describing the best methods of getting up signs to be finished with a black ground, but of course the same conditions will apply in the getting up of any coloured grounds. There are three different ways of finishing a sign board black, all of which may be used on different work. The first is finished with the ordinary black paint, which may be either the common lamp-black ground in and mixed with boiled oil, or drop black, or vegetable black, mixed in the same way. This plan is, however, only suitable for use upon rough or common work, because a thoroughly good surface cannot be got in this way. In the second method we first give the sign a bare coat of oil colour black upon the previous three coats of brown. We then grind drop black in turpentine (or fine vegetable black will do) stiffish, and then add sufficient japanner's gold size or varnish to bind it, and with this carefully coat the sign over. When this is dry and hard we finish with one or two coats of copal varnish, or good "oak" will answer the purpose. If this is properly and carefully done a smooth and glossy surface will result. Our third method of finishing differs from the others only in the finishing coats. Instead of using the quick or dead black as in the last place, we mix our black for the last coat but one so that it shall have an egg-shell gloss, which may be made by using about equal quantities of turpentine and oil, or perhaps a little more of the former than of the latter. We give the board a bare coat of this colour, and when it is dry we give it a finishing coat of black japan alone. This if carefully done will make a beautifully smooth and lustrous jet black surface, upon which gold leaf will come out very bright. This surface becomes very hard in a few days; should the sign from some cause require two coats of the black japan it should be carefully damped down with a damp wash leather before giving the second coat, which damping prevents the second coat from sissing, that is, drawing itself up off the surface and forming small holes—technically called pin holes. All varnishes will do this when one coat is put upon another *except* it is prevented by damping down. We have thought it necessary to lay particular stress upon the getting up of sign boards, for the sufficient reason that no good work is ever done without care and labour, and much otherwise good work is spoiled from want of attention to these matters; on the other hand the pleasure and satisfaction experienced when we know we have done a good job is worth all the extra trouble and care we have bestowed upon its execution.

The board being now finished painting and ready for writing, we shall require a two-foot measuring rule, a chalk line, fine soft string (or what is called piping cord will do), a rest or mahl stick, palette-board and knife, a few sable and camels-hair pencils—the former being the best, as while the hairs are flexible they are yet stiff enough to hold heavy colours in writing without bending, as camels-hair does; but the latter will serve the purpose when not using heavy colours. These are what are called writers, and when purchasing them it is a good plan to wet them with the mouth and put the point upon the thumb nail and twirl or twist the pencils, if they keep their point they are good, but if the point opens or splits they are not good. We shall also want some short-haired pencils for filling up the letters after they are outlined. Mr. J. Hill of 230, Pentonville Road, King's Cross, N., lays himself out specially for making these fine goods for sign writers and grainers, and we could not do better than recommend intending buyers to send for Mr. Hill's list before making their purchases. Before the pencils are used in oil colour they should be dipped into turpentine. Pencils should always be washed out with soap and water when done with for the day, as they keep better and wear longer thus cared for. Some writers grease them or put them into sweet oil, but no plan is so good as washing them. Some pipe chalk, or soft white crayon, will be required for sketching in letters before writing them. The pipe chalk is the best for the purpose, and may be procured from any tobacco pipe makers, as they are simply unburnt pipe stems, and make admirable sketching crayons. The paint for practising with on the black board must be mixed of white lead, or zinc white and oil; but should have as much sweet oil mixed with it as will prevent its drying. We can by this means practise upon the same board time after time without having to re-paint it, because when we have done practising for the time, the paint we have been using may be wiped clean off the board, leaving it clear for another start. The paint may be held in a tin tot or dipper, which is made with a flange that fits on to the palette board. They may be purchased at any artists' colourman's. By using these, we have our working colour always at hand without having to move for it.

Everything being now ready, we divide the board horizontally into three-inch and two-inch spaces alternately. We must then mark a series of straight lines and curves in the three-inch spaces, using the pipe chalk and indicating the lines by slight dots, the straight lines in one line and the curves in another. We now take the palette board in the left hand, having the thumb through the thumb-hole, also holding the mahl-stick in the same hand. We then dip the pencil into the paint, then on to the palette board, to take off the superfluous colour, then rest the end of the rest upon the board, with the wrist lightly laid upon it, holding the pencil charged with colour between the two first fingers of the right hand, and proceed to form the strokes and curves. These lines and curves should be practised incessantly until they can be done correctly and with ease. After this has been accomplished, all the rest will come easy.

Next month we shall give another sheet of coloured letters.

(To be continued.)

ADVERTISEMENTS are the quiet solicitors, who never intrude but who never fail to make themselves known, and are seen and remembered despite the will of the reader, who could not forget them if he would.

OUR MANUFACTURING INDUSTRIES.

A VISIT TO THE TORBAY AND DART PAINT COMPANY'S WORKS, DARTMOUTH.



WE have before had occasion to advert to the beautiful situations and surroundings occupied by some of the manufacturers who provide for the painting trade, and a recent run into Devonshire enabled us to pay a flying visit to the works of the Torbay and Dart Paint Company at Dartmouth, of which we have very pleasant recollections. To the lover of nature the scenery of Devon presents varieties and combinations unique in their character, which it would be difficult to equal and almost impossible to surpass. Readers of Kingsley's works know with what a passionate affection he always wrote and spoke of his native county. Nowhere else do we find such boldness of character with such softness of line and richness of colour, uniting the undulations of Yorkshire, the colour of Derbyshire, with the richness and verdancy of Surrey, in conjunction with a coast-line at once beautiful and grand.

Devon has always occupied a front position in the history of our country, and in its contribution to our list of great men it presents a galaxy of worthies, every one of whom is dear to us as Englishmen, not one of whom could we part with for priceless treasure. Warriors, navigators, statesmen, poets, divines, artists, historians, and travellers, grace the muster roll of her great ones. The dauntless Greville, the gallant Raleigh, the bold Sir Francis and the adventurous Hawkins, Monk and Churchill, Hooker and Jewel, Kitto and Kingsley, Gay, Coleridge, Gifford, Clifford, Speke the explorer, Froude the historian, Reynolds and Eastlake, the painters, Lord John Russell and Sir Stafford Northcote, with a numberless host of others our space will not permit us to enumerate, but whose deeds and lives have gone to build up the fame and greatness of our country.

No wonder that Kingsley loved Devonshire with the passionate devotion he always betrays when he speaks of it; he must be a cosmopolitan indeed who could live amidst such beauties and glories, and revel in such memories, and not give to them the first and foremost place in his affections. Not only is the county possessed of great natural beauties, but it is rich in mineral and vegetable products. Dartmouth, where are situated the works of the Torbay and Dart Paint Company, is a thoroughly representative Devon town. As seen from the Kingswear side of the river, the houses rising from the edge of the water tier above tier in artistic irregularity, with rocks covered with richly coloured mosses and lichens, contrasting with the red brick of some of the dwellings topped with their purple-toned slates, and flanked by the hills sloping down to the sea on the left, towering heavenwards in the immediate background of the town, and running to the north-east in bold sweeping lines towards Dartmoor, form a picture that we could linger on without wearying; and of it we can with sincerity employ the words of the hymnist, and say, "I have been there and still would go"; and if we substitute the positive for the conditional we shall more accurately describe the present state of our intentions.



It is amid surroundings such as these that the company's works are placed. When we recall the fogs, and smoke, and smells, called by courtesy air, in which some

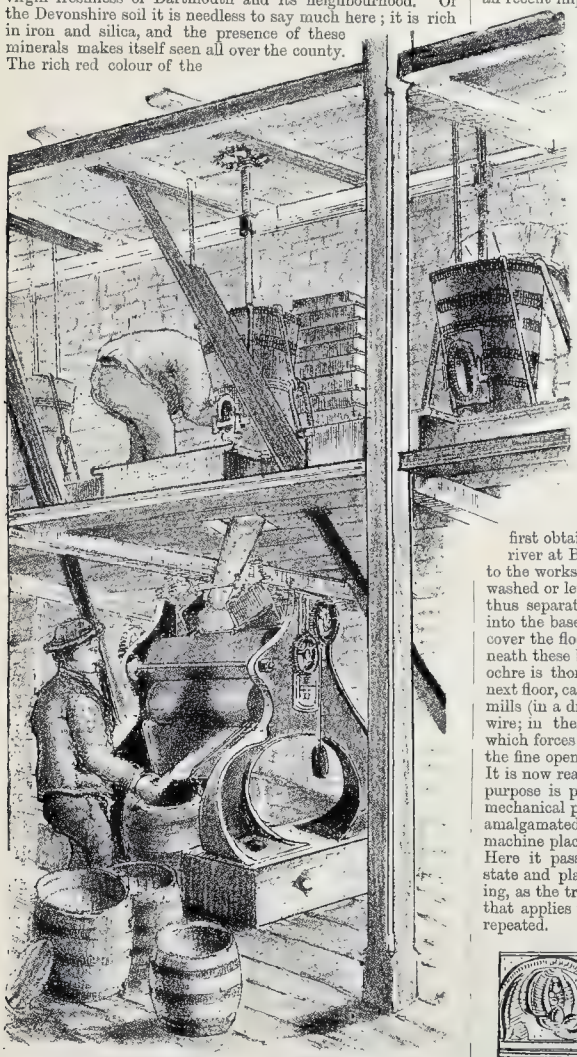


"EARTH"

of us pass our lives; and instead of the clear blue vault of heaven, a network of telegraph and telephone wires, and for verdure clad hills, a succession of roofs and chimney pots



diversified with an occasional area—when we remember these things, we sigh for the Arcadian simplicity and the virgin freshness of Dartmouth and its neighbourhood. Of the Devonshire soil it is needless to say much here; it is rich in iron and silica, and the presence of these minerals makes itself seen all over the county. The rich red colour of the



ground sufficiently attests this, and imparts a beauty to the landscape which nothing else can do.

The company's works are situated about a mile up the river, on the south side of which they occupy a considerable area of ground. They have their own wharf and boats; and being thus in direct communication with all the ports of the country, and by the S. Western Railway with all other railway stations, they can place their goods at the different centres at a minimum of cost to the buyer. The works are under able management, and things appear to run with a smoothness that speaks well for those who have the conduct of this part of the business. "A place for everything and everything in its place" evidently being the basis of all that is done here, with the result that the work is accomplished without the friction that a less systematised method would occasion. The works are modern, and the machinery employed is of the newest description, combining all recent improvements.

One of the company's most important products is their celebrated iron paints. These are made from silicious ironstone, the exact processes in which manufacture we are not at liberty to describe; it will be sufficient here if we say, like the policeman at the pantomime, that used to delight our childish fancy, that the ironstone goes into the machines at one end of the works and comes out paint at the other end. The peculiar properties of the paints are their great covering power, and the resistance they offer to atmospheric influences. These are attributable to two causes: First, their natural and inherent density; and secondly, the extreme fineness to which they are ground. Their "No. 1" Torbay brown, being a light colour, forms the base of many of the lighter shades of the company's paints. Another product of the soil, manufactured by the company, is the Torbay ochre. Many of our readers who do not know the clay in this form, will be familiar with it in the shape of terra cotta plaques and vases; the prodigality of colour given to the soil by the abundant presence of the iron, makes it an excellent source of supply for all yellows and reds. The Torbay ochre, like the red, has immense covering properties, resembling Italian ochre more than English, and being quite equal to the former in its staining properties. The *modus operandi* of making this paint is as follows:—The earth is first obtained from the company's mines some miles up the river at Brixham, where it is sun dried, and brought down to the works on boats. Here it is unloaded at the quay and washed or levigated, the portions containing the ochre being thus separated from the common soil. This is then taken into the basement of the works, where extensive vats or beds cover the floor. These are termed the drying beds. Underneath these beds run flues made of fire-clay bricks; when the ochre is thoroughly dry it is raised through lifts on to the next floor, called the crushing-floor. Here it is passed through mills (in a dry state) and from these into cylinders of fine wire; in these cylinders are a series of revolving brushes which forces the ochre—now crushed extremely fine—through the fine opening of the sieve into chambers made to receive it. It is now ready for mixing and grinding in oil, and for that purpose is placed into hoppers. From these hoppers, by a mechanical process, the ochre—when mixed and thoroughly amalgamated—is carried down a channel on to the grinding machine placed on the lower stage, as shown in our sketch. Here it passes through the rollers, and is ground to a fine state and placed in the casks ready for packing and distributing, as the trade demands. The process thus described is one that applies to most of the other colours, and needs not to be repeated.



The company do all their own work on the premises, and have for that purpose a cooper's shop, where the casks are made; a tin-smith's shop, where are manufactured the tins

for the ready-made paints—a trade which is one of very great importance to this company; a joiner's shop; a keg room, where all the empty kegs are stored; a laboratory, where the experiments are carried on; and last, but not least, the painter's shop.

The sketch at the head of this article shows a portion of the company's works and quay abutting on to the river. The slight outline sketch is of another and older part of the works, and the reality is a very picturesque bit indeed. The two tail pieces are sketches of carved borders from the Butter Walk, an architectural relic of the Elizabethan age in an excellent state of preservation.

It has often been a subject of perplexity how the company get up their very beautiful cards of tints, numbering about eighty-eight various shades, and we now had an opportunity of having the doubt resolved. The different colours and tints are painted on sheets of cartridge paper the required number of coats, when these are dry and hard, they are cut up into thin strips the length of the paper and about half an inch wide. They are then pasted at the back with good strong paste and fastened to a large sheet of thin paper, in the order we find them occupying on the show card. But instead of being, as there, only one inch long; they are about twenty-six or twenty-eight inches in length. These are now cut down into strips about an inch wide, each strip containing fourteen specimens about one inch long and half an inch deep; in this form they are attached to the printed show cards and are ready for sending out. It is almost superfluous to say that such work is done by women and girls, as it is essentially woman's work requiring deftness and neatness in handling. The company issue many thousands of these cards annually, so the making of them alone is no light matter. There are three classes of paints which the company produce. First, paints for rough iron work, such as gasholders, &c., where many adverse influences have to be resisted. These paints, whilst possessing all the good qualities of the other Wolston Torbay paints, differ from them in not being quite so finely ground. The second class are the paints prepared for ordinary use. These are ground to the fineness of the ordinary paints of commerce, and are suitable for every description of ordinary house painting work. The third class is described as "special tints for interior use and decorative purposes," and with this show card before us as we write, we can heartily endorse the recommendations of the company. These paints are not only beautiful in point of colour, but are ground so exceedingly fine and have such a lustre that one is disposed to think that they are prepared with varnish, but such we are assured is not the case, and the brilliant appearance is due to the nature of the paint and the fineness to which it is ground.

The company's paints have long found favour at head quarters, being scheduled amongst the lists of the Admiralty, the Arsenal and other military authorities; having been in constant use at the different government depots for many years past, and gained for themselves well-earned praise and reputation. At the time when we were visiting the works a very large government order was being packed ready for shipment to South Africa, all made up in cwt. kegs labelled and marked with the well-known initials "O.H.M.S."

In concluding our brief notice we would point out that it is "Wolston's Torbay Paints" the company manufacture and sell, and for which they are so justly celebrated; and that there are other so-called "Torbay Paints" in the market, not having the qualities which these now famous pigments possess. The Company's Offices are at 23, Great George St., Westminster, where all business communications should be made, and whence their cards, &c., can be obtained.

SCOTCH NOTES.

We have had snow and frost nipping our hopes in the bud since my last report, but the best men are now fully employed, and many good jobs are going on.

A friend informs me that he was at Loch Long recently, seeing a large job (Ardarroch House) which Mr. Stevenson, Hope Street, Glasgow, is at present decorating. The whole house has been done with the Silicate Paint Company's Charlton White, and I am assured that the finish and flatting of the work is highly satisfactory. My friend tells me that the decorations of the drawing-room staircase and vestibule are by Joseph Sharp, whom I mentioned last month, and that the vestibule especially is a piece of elaborate work, rich in colour and gold, and well worthy of his pencil.

Speaking of Mr. Sharp I find that I unwittingly did an injustice to another decorator when I said that he did the Royal Princess' Theatre for Mr. Edgar. The decoration of the interior of the theatre was executed by him, but when Mr. Edgar did the vestibule, twelve months after, Mr. Chas. S. Finlay did the ornamental work, and at the same time he also did the Grand National Hall, also for Mr. Edgar; both jobs are very good, and show that there is the right stuff in Mr. Finlay, and that we should hear more of him. I am glad to hear that he is connected with the Decorative Society to which I referred last month.

I have just met the writer of the piece of rhyme which appeared in last month's notes. He is much hurt at being compared to the author of the "Lady of the Lake," and judging by his effusion he does not know much about lakes or fine colours of any sort.

Speaking of Sir Walter Scott reminds me of a good story which the late D. R. Hay, of Edinburgh (the most prominent Scotch decorator of his time), tells in one of his books on House Decoration. It appears that he had painted Abbotsford House for Sir Walter, and when the work was almost completed Sir Walter arrived home one evening after having been absent for a length of time. Mr. Hay showed him what had been done, and Sir Walter was delighted with everything excepting an ante-room off the library; it was hung with a dark paper, and Sir Walter regretted it had not been done oak the same as the library. Mr. Hay said nothing, but next morning he put on a staff of men who carefully stripped off the paper, and by the time Sir Walter found his way into the room it was as he had wished, for, strange to say, it had first been done oak and then papered, as Mr. Hay did not like it. Sir Walter was much pleased and assured Mr. Hay that it looked as if it had been changed by some magic spell.

Your articles on bookkeeping will be found very instructive, as many painters are extremely careless on this point. I notice you recommend single entry; it certainly is preferable in a case where time is money, but in a large business double entry is the correct thing, as you cannot keep your place tidy without two entries, one in front and one at the back.

If you think of advising painters how to conduct their business the following copy of a circular might be found useful. I believe it was carefully prepared by a firm of decorators now financially defunct:—"To architects, proprietors, &c. Messrs. Slap, Dash, and Co., house painters, ecclesiastical, mural, interior and exterior decorators, paperhangers, gilders, sign-writers, and white-washers, beg to inform the inhabitants of Scotland and the adjoining islands of England and Ireland, that they have opened these premises, 3, Puttee Street, and 600, Whiting Street, Edinburgh, on a lease of five years with the option of a break at the end of six months if unable to pay the rent. The premises are central, although at the corner of a street. The Whiting Street door is for taking in goods on credit, and may also be used as a means of exit should parties be observed coming in by the other door for payment of the goods. With these facilities S., D., and Co. flatter themselves that they can undertake any amount of work, and execute it to their own entire satisfaction. Estimates furnished on the shortest notice, and priced according to size of job, or to the amount of size that may be required, and S., D., and Co. assure their future customers that they will use as little oil paint as possible in executing the work. Terms—Cash in advance. *Note.*—S., D., and Co. undertake that should any dispute arise regarding the work, customers are at liberty to employ other tradesmen to do the work over again at their own expense." This firm did not succeed after all. It was the old story—they started with high hopes and good resolutions as clearly shown in the foregoing circular; but, alas, these were soon forgotten, they began to give credit, they did work cheap, they gave up using size, and last and worst of all they took to using white lead largely, and what was the result? One of them was killed in a railway accident, and the other was sent out as a missionary to the Sandwich Islands, and the only chance he has of escaping being cut into slices and eaten is the fact that he is suffering from lead poisoning. Such is life!—Yours truly,

Peter Paletteknife.

OUR ILLUSTRATIONS.

THE two panels, Spring and Summer, given with our March number, having been received with so much satisfaction, we, this month, give the fellow panels, Autumn and Winter. We had intended deferring them until a later date, but as so many of our subscribers want them to complete the series, we give them here. We are desirous of pointing out that in the working of these four panels from the large drawings it will be quite proper to use only one of the ornamental designs, in which the vases and flowers are enclosed for all four of the seasons. That is to say, that we may do the first panel, Spring, as it is on the design, and use the same design for Summer, putting the summer vase and flowers in the place of the spring ones, and so on with Autumn and Winter. It will be seen on inspection that these panels have been expressly designed with this object in view. A little extra trouble in the arrangement will be required, but that will be very simply done, and when done, the ornamental parts of the four panels would be similar, the vases and flowers being each distinct. We also desire to point out that as most ordinary doors have two top and two bottom panels of different sizes, the designs will have to be so arranged as to be made to fit the shorter panels, and yet keep somewhat alike in their general form. If there are lines on the top panels they must be repeated on the bottom ones, and the ornament made to fit them. The vases and flowers must of necessity appear on the bottom panels. Autumn and Winter are the most appropriate, and a portion of the ornament must be added to complete the design. The best plan to do this is to stencil the vases and flowers on to a piece of cartridge paper upon which is marked the exact size of the panels, then put the stencil upon it again, and fit to it that part of the ornament which will come in to the space best and most complete. If this is carefully done, and with judgement, a little piecing up will make a finished design. This is a difficulty we have continually to face in getting out designs for any purpose, but it is also one that, in this case especially, need not be a stumbling block in the way of doing these designs, as a little time and patience will surmount the difficulty.

Autumn.

In designing these panels, we have endeavoured to put together, in each special season, those flowers which are most characteristic of the time, and of our own country. In this design we have chosen to represent the early part of the Autumn season, and not its later and more winterly aspect.

With the first breath of Autumn, berries are ripening. Acorns begin to fall. Big blackberries hang from the trailing bushes. Elder bushes are laden with their dark fruit. Nuts are ripening, and the hips and haws with their ruddy hues are taking the place of the flowers and peeping out from beneath the fading leaves. From amongst the ripening corn the wild poppy holds up its scarlet head. The brilliantly yellow ox eye or corn marigold shines forth, and in harmonious contrast is the corn blue-bottle, beautifying the season. We might have chosen a great number of other flowers to represent this season as the poet says:—

> The scarlet pimpernel creeps here and there,
> Amid the corn the crimson poppies blush,
> Still on the brooks gleam water-lilies rare,
> And purple loosestrife, and the flowering rush;
> Sill honeysuckle blooms perfume the gale,
> Where bryony-leaves adorn the hedgerows green,
> Where peep the scabious, and the campion pale,
> With trumpet-like convolvulns between;
> The blue campanula, and the chicory wild,
> And yellow toad-flax variegate the plain
> And with a thankful heart and sense beguiled
> We look upon the fields of ripening grain.

The flowers we have chosen to represent Autumn, in addition to the wheat are the poppy, the corn marigold, the corn blue-bottle, and the blackberry. As we have before said, our aim has been to make these panels as simple and yet as characteristic as possible, and also to avoid overcrowding; but when they are being painted the artist may add to the Spring flowers some early grasses—a few strokes of the pencil on the background will accomplish this, and for Summer. Autumn, and Winter, grass and ferns may be added with good effect. We do not show them in the panels in order to avoid confusion and overcrowding, but any person who can use the pencil may pick up a few specimens from the large number to be found in the meadows and hedgerows, which will serve his immediate purpose, and be also instructive in the future. Useful and valuable lessons may be thus acquired both in colour and form; a subject, by the way, of which we shall have a good deal to say, some of these days.

Winter.

As in Autumn, so in Winter, we might have chosen a number of wild flowers to embellish our design, but we have preferred to confine ourselves to those universally known and symbolical, trees or plants, which are inseparably bound up with our ideas and experience of winter time.

> "See, Winter comes to rule the varied year,
> Sullen and sad, with all his rising train—
> Vapour, and clouds, and storms."

And as he comes the wild flowers go to their wintry home, where the secret processes of Nature, which are never still, are at work to renew with vigour, life, and beauty, the opening year, and gladden the face of Spring.

> "Now with bright holly all the temples strew:
> With laurel green, and sacred mistletoe."

We have here limned the mistletoe and holly, and have not forgotten to leave a few hips and haws for the birds to peck at in the bitter winter time. A few leaves of ivy give a little variety. It will be seen that we have used the holly as a conventional ornament and kept it separate from the holly in the vase which is represented in its natural form. This arrangement gives us the opportunity of using the one without the other, and substituting another design for the centre instead of the vase, &c., which it now encloses.

The small panels contain figures representing Sculpture and Architenture.

In the painting of these two panels the general directions given with Spring and Summer, will apply; but, of course, they may be each treated in many different ways, according to the circumstances of the case, or the taste of the artist. In painting Autumn, we have a wide latitude in colour. In nature the leaves begin to assume various tints of green, yellow, purple, and red, and several of these Autumn tints and hues may be seen upon a single leaf. Ferns especially show many gradations of tone and hue upon a single frond. We have seen hundreds of examples, the common bracken more especially, which, in the compass of a single frond have exhibited a succession of the most beautiful colours graduating one into the other, from the most intense yellow at the tip down to the deepest purple at the base. Consequently, in the choice of colour for this season we should select and use warm greens, russetts, and red browns, that is, if we wish to make our work correspond with the season, just as in Spring all should be fresh and green of the purest and brightest, while in Summer we have still brighter and more vived colours, and in Winter sombre hues relieved by bright bits of colour which we can legitimately use in accordance with the time of the year. But if we use all the four panels in close relation to one another, then we would treat the ornamental parts in an exactly similar manner as described for Spring and Summer; this would cause the whole of them to be, technically speaking, in keeping—that is to say—painted in harmony with each other. The flowers, &c., in the vase representing Autumn should be painted as before described, the corn marigold, being yellow of a bright hue, made with either lemon chrome and white, or they may be painted white and then glazed with aurelliaan, the shadows being painted with raw sienna having a little burnt umbre, or vandyke brown mixed with it. The corn poppy should be laid in with vermilion and glazed with crimson lake, or a little chrome yellow may be added to the vermilion which will give a scarlet when glazed. The corn bluebottle may be laid in with ultramarine blue and white, and shaded with purple lake and outlined. The wheat is laid in with yellow ochre and white, and shaded with burnt sienna and umber. The blackberries should be first stencilled in with a reddish purple, made with purple lake, white, and a little vermilion, and the detail and shading, if any, with purple lake alone; the leaves and stems of all the flowers being of different warm tints of green, as before described.

The last panel, Winter, may be, in its purely ornamental parts, painted the same as the others, but if separate, then the conventional holly may be stencilled on the dark parts of the leaves, of a dark neutral green of a warm hue, having a little red with the green. The light parts which are shown with spots on them, should be stencilled in a light greyish green; Brunswick green, and white, with a little blue added, will make the colour we mean. The band on the edge of the leaf may be done either a deep gold colour, or a pinkish red upon the dark parts, and a lighter tone of the same colour on the light parts of the leaf. The stem of the holly may be either a rich greyish brown or a very deep gold colour, and the outlining and detail put in with dark brown.

The natural holly in the vase must be painted with two shades of green, dark and dull for one side of the leaves, and a lighter shade for the under parts of them. The ivy must be treated in the same colours. The mistletoe, both in stem and leaf, may be of a yellowish green of a dull hue. The stem and faded leaves of the hawthorn of a dull, faded green. The berries on the conventional holly may be red, with a black centre, but those on the holly in the vase must be of their natural colour, which may be got by first putting them in vermilion, then glazing with crimson lake. The hips and haws must also be red, but these may have a little yellow added to the vermilion, and if shaded, madder brown will be best to use for that purpose. The berries of the mistletoe should be put in with a greenish white, and if shaded it may be done with vandyke brown, with a little green added. All the berries should have a speck of pure white put upon them whether they are shaded or not. This gives the effect of roundness and gloss.

We have hitherto only given instruction for the doing of these panels in something like their natural colours, but good effects may be obtained by painting them in low-toned colours, using only two or three shades of the same colour, or even only using one colour, and outlining and putting in the detail with another; or the stencil pattern need only be outlined when stencilled in one colour. Beautiful panels may be produced by gilding the ornament, vases, and flowers, and outlining them in black afterwards. In fact they may be treated in a dozen different ways, and all be pleasing. Well-selected neutral colours with a black outline on a dark ground always look rich and good.

The third page of our illustrations is a panel symbolical of "Earth," taken from "Amours et Figures Décoratives," by E. Meyer; and the fourth page is a representation of "Music," by the same artist.

Malice Prepense.—From Teignmouth and from Whitehaven we have recently had intimations from subscribers that they had "been told from the London Agents that the Journal of Decorative Art was dead." We have had this statement made in different parts of the country and feel assured that it is set in circulation by some one interested in making it true. That it is not true nor likely to be it is superfluous to say, but we feel bound to state that if we can trace the authors of so malicious a libel, we will use the powers the law gives us to punish them, as they will find out to their cost.

The forthcoming Furniture Trades' Exhibition promises to be the great success of the year as far as popular exhibitions are concerned. The promoters have spared no pains to arrive at so gratifying a result; not only is the large hall occupied, both ground floor space and galleries, but all the available rooms in the place will be occupied. To add to the attractions, the band of the Grenadier Guards, conducted by Dan Godfrey, will be in attendance each evening from 7 to 10. Many hints and much information can be gathered from a visit to such an exhibition that could not be obtained in any other way.



"MUSIC"

SHORT NOTES ON DECORATIVE ART IN ITALY.

By Richard Glazier.

One great feature of the Pompeian style is the colouring of the frescoes, in which pure red, yellow, and green are the principal pigments used. Vitruvius writes: "What the ancients accomplished by



*Fig. 1.—Frieze.

art we attain to effect by gaudy colouring; expense is now substituted for skill. Who in former times used vermilion except for physic? We now cover our walls with it."

Pliny, writing before the destruction of Pompeii, speaks of the love of colour: "A man now cares nothing for art providing he has his walls covered with purple or dragon's blood from India."

Vitruvius also enumerates many of the decorative features of the ancients; how they first marbled their wall, then set out the panels, enriched with stucco mouldings and ornament; their architectural decorations, figure, landscape, still life, and ornament in fresco upon the last coat of plaster on the wall (mentioned by Vitruvius as a cement composed of powered marble).

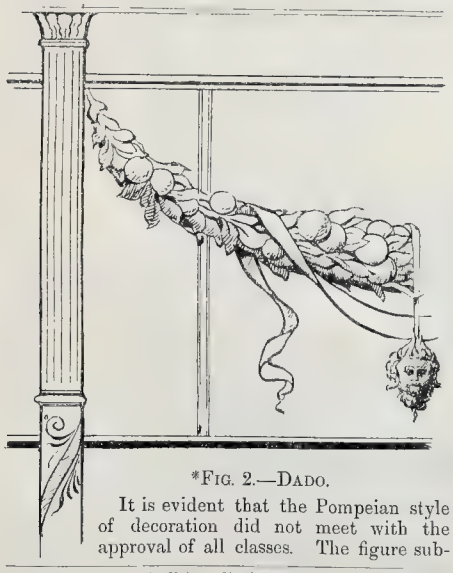


*Fig. 2.—Dado.

It is evident that the Pompeian style of decoration did not meet with the approval of all classes. The figure subjects were in many cases sensual in treatment and extravagant in the ornamental details.

The figures usually are representative of Roman and Greek mythology and scenes from ancient legends. The still life subjects are fruits, birds, and fishes, treated in natural colours, usually for dining rooms.

Fig. 4.—A sketch of wall panel in the House of Cæsars, in the Palatine at Rome, painted in fresco, natural colours.

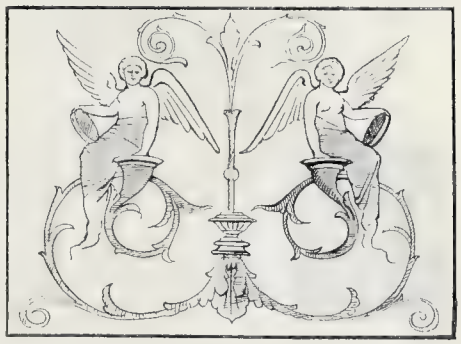


Fig. 4.

Fig. 5.—A large panel in mosaic representing various kinds of fish, all caught to this day in the Bay of Naples. The centre of panel is damaged, yet showing an octopus fighting a crawfish. The large fish in the foreground is known as the "spinola," one the best of local fish. The border of this mosaic is arabesque flowers and leaves, and treated in good colouring. This mosaic panel was from the House of the Faun, Pompeii, and is now in the Museum at Naples.



*Fig. 3.

In Pompeian ornament we see the decline of ancient art. The grandeur and massiveness of the Roman ornament gives place to a style in which the most incongruous materials are mixed up with pieces of ancient ornament, and used without regard to fitness. Figures are seated upon slender tendrils of plants; a horse or lion are balanced upon a flower, showing no regard to natural laws. Many of the Mosaics which formed the floor of the Pompeian house, although fine and beautiful as works of art, are quite unfit for the decoration of a floor.

The Pompeian decorative artists were constantly striving after novelty, and it is evident they found it, for much of the decorative ornament shows that any material was thought suitable for ornamental treatment provided it gave variety to the work.

Most of the Pompeian ornamental paintings are

* See Notes in March number.

badly designed and executed, showing a marked contrast to the workmanship of the Mosaics. Certainly the ornament shows freedom and fancy, but correct drawing is necessary to beautiful work, and in Pompeian ornament it is wanting.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

(ALL RIGHTS RESERVED.)

(Continued from page 321.)

CHAPTER XXVIII.—EGYPTIAN PORPHYRY.

IN our last number we described the various methods of imitating granites, and as the Egyptian porphyries and some of our English serpentines may be imitated in a somewhat similar manner, we have thought it advisable to describe them here. We have several red, green and brown marbles obtained from quarries in different parts of the kingdom, principally in the neighbourhood of Penzance, Cornwall, which are classed under the name of English serpentines. These, as a rule, are akin in the point of the markings and distribution of colours to the porphyry of the Egyptians, and are being extensively used in the form of small columns and pillars in Gothic work generally; they are also used for inlaying with other marbles. There are several shades of colours of the Egyptian porphyries, but the kind most generally used is of a rich dark red-brown hue, having small spots of a brilliant red (vermilion) with black, white, and grey interspersed and mixed one upon the other, having also thin veins or streaks of white here and there on portions of it.



FIG. 5 (see preceding article).

In imitating these marbles we mix the working colours in the same manner as for the granites, as before described. With this we paint over the parts to be marbled, the ground colour being made with Indian red, with a little black mixed with it. When this is set we go over the whole of it, using an open sponge with black mixed with turps and japanners' gold size, using it rather freely. We now use the brush as described for the splashed granites, and throw on to the work some small spots of vermilion. This should also be mixed with turps, but having plenty of japanners' gold size or quick drying varnish mixed with it in order to prevent its running out of shape when the spots get on the work. This is the more necessary inasmuch as vermilion is an exceedingly heavy colour, and except it is prevented will run by the force of its own weight. After this colour is on we follow on in the same manner with a bluish grey. This may be used somewhat thin, so as to give transparency. We then throw in some solid white, using it sparingly. Too much will obscure the other work.

Another colour of porphyry is of a deep rich yellow-brown colour, having patches of yellowish-white interspersed with black, white, and brown markings. This kind may be imitated in exactly the same manner as the red, described above. The ground colour is made from white, burnt umber, orange chrome, and Indian red. We sponge the black as before described, then use a lighter and brighter tint of the same colour as the ground. This may also be put in with the sponge. The transparent and solid white spots are then splashed in, but before putting in these latter colours we take a fitch and a little of the second colour and white, and open out or make some of the small patches left by the sponge into larger ones, but none of them more than an inch or inch and a half wide, then splash on the two whites. When these are all dry we put in the thin white veins with a writing pencil. These marks or veins generally run across the slab or column. In doing them we use, first, a thin bluish white, and while this

is wet we put upon it touches of solid white, and soften or blend them a little into the thin white with the badger hair softener, lengthways of the vein. We thus keep the edges sharp and clear, which if softened across the vein would spread them and spoil their shape.

There is also a green porphyry which is very rich in colour. It is worked upon an invisible green ground (*i.e*, Brunswick green, black, and burnt umber); the black, is first sponged in as before, then two other shades of green, both lighter and brighter than the ground colour, are put in with the sponge. Spots of Indian red are then splashed on to the whole, and also a few spots of white. The green, yellow, and red porphryies form an harmonious combination of colour.

Our English serpentines seem to us to be of the same nature as the Egyptian porphyries. They include a considerable variety of colours, several shades of green, purple, red, and brown, &c. They are distinguished from the granites proper by their greater variety of colour and kinds, and in their larger and more irregular markings, and also in their having a thin white vein or streak which crosses the slabs in a diagonal direction. As a rule these streaks run all in one direction, and are rarely continuous, but are broken into short lengths, and are seldom above a quarter of an inch wide. In imitating these marbles the same system may be followed as with the porphryies, black and white never being absent from all descriptions of granites, serpentines, or porphryies, those of a red-brown colour being worked off a red-brown ground, the green off an invisible green ground, and so on with any other colour, the sponged black being always the first colour put upon the ground. The other colour coming upon the top of the black breaks it up and takes away any formality or regularity which may be left by the sponge. Not only so, but a very great variety of semi or half tones of colour are produced by the one colour being put upon the other, which tones of colour are of the utmost value to the work when finished, as they give an appearance of depth and variety not to be obtained by any other process.

BOOKKEEPING.

FOR PAINTERS AND DECORATORS.

CHAPTER II.

In continuation of our article of last month we now propose to review and explain the uses of the two undermentioned books—viz:

Day Book.
Invoice Book.

These two books without doubt are the most important in a business, although, as a rule, the Invoice Book is very often dispensed with entirely, and its place occupied by unsightly and bulky files, which look untidy and unbusinesslike, and are very inaccessible for reference to any account or bill that may be required from them. We, however, consider that the one book is of as much importance in a business as the other: for it is through the medium of the Invoice Book that all our purchases are recorded, and through the medium of the Day Book that our sales and orders are entered.

We now propose to treat of the Invoice Book, although, perhaps, the Day Book should rightly first receive our attention, but we are of opinion that we ought to deal with the book treating of the buying and purchasing side of the business first, as it is self evident you must buy your goods before you can either sell or use them.

The Invoice Book is generally a large book, about one and a-half times folio size, or say 19 inches deep, and should contain from 150 pages upwards. In many cases they are made perfectly plain, but it is much more convenient and conducive to good bookkeeping if they are ruled as in the example given here. There are folds of paper inserted along with the leaves of the book at the time of binding, and these are for the purpose of preventing the book from unduly bulging out when filled with invoices. The invoices should be carefully and uniformly folded up and gummed on each page in consecutive order as to date, and the name of the firm the goods are bought from, the date, and the amount of the invoice being inserted on the invoice itself. Each page should have the month and year inserted in large characters at the top, and should be added up and the total carried forward to the next page.

The amount of the invoice should then be posted to the credit of the different firms in the ledger, and the ledger folio inserted in the margin provided for it as shown in our illustration.

JANUARY, 1883.

Amount.			Led. Fol.	Name and Invoice.		Fol.
				Randall Bros.		
20	11	6	325	Jany. 5th, 1883.	£20 11 6	
				Samuel Wills & Co.		
12	15	3	360	Jany. 5th, 1883.	£12 15 3	
				Samuel Wills & Co.		
14	16	5	360	Feby. 3rd, 1883.	£14 16 5	
				The Copal Varnish Co.		
19	10	6	350	Feby. 1st, 1883.	£19 10 6	
67	13	8		Carried Forward.	£67 13 8	

The Day Book.—It is useful as we suggested in our last to have two rough entry books to act as a kind of "lion's provider," from which the Day Book proper is entered up. The Day Book is perhaps of the two books the most important, and we cannot impress upon our subscribers too much the importance of its entries being as regular and precise as possible. It should be ruled and have a margin for the page of the ledger to which the amount of the account is to be posted, a column for prices, and two columns for money—the first showing the sums in detail and the second the total only. In posting the amount to the debit of Wm. Jones' account it is sufficient to post the total of £1 5s. 2d. In adding up the day book it would serve as a cheque on the correctness of the additions if both the money columns were added up, and if this were done independently it would prove their accuracy. The additions of the book after adding should be carried forward to the next page. Great care should be used in always putting the month on the top of the page, or otherwise it would be difficult to know what month you were posting from if this were not done. (See our illustration.) If our remarks have been carefully followed it will be observed that items from the Day Book are posted to the *debtor* side of an account, that is, to the credit of the employer, money owing *to* him in fact, and those from the Invoice Book to the *creditor* side, or money owing *by* him.

JANUARY, 1883.

Led. Fol.								
	15th							
26	Wm. Jones, Croydon.							
	1 gallon of Varnish	16/-		16	0			
	10 lbs. Paint	7d.		5	10			
	1 pint of Knotting	16.-		2	0			
	1 lb. Cannon's Size	1/-		1	0			
	1 lb. Pumice	4d.		0	4			
						1	5	2
	15th.							
30	J. Alexander, Peckham.							
	1 cwt. Duresco	60/-	3	0	0			
	1 gallon Griffith's Enamel	27/-	1	5	0			
	28 lbs. of Whiting	2/-		1	2			
	2 lbs. of Size	1 -		2	0			
	1 pint Jap. Size	2,-		2	0			
						4	10	2
	16th.							
	Carried Forward		5	15	4	5	15	4

We feel that doubtless many of our subscribers have good systems of keeping their books and accounts and therefore require no suggestions from us. It is not to these our remarks are directed, but rather to those who have no system at all, or at all events, but an imperfect one of keeping books. We shall, however, be glad to supplement our remarks with suggestions from any of our subscribers who like to favour us with them. There is, of course, only one way of keeping books and that a correct one, but we see the impracticability of laying down a fixed rule or set of books to be strictly adhered to, as it is very often found in practice that the mode of a book can be altered and a fresh one suggested without altering the principles which underlie all good bookkeeping.

(To be continued.)

TRADE INTELLIGENCE.

We understand that a number of our advertisers are making a good show at the forthcoming Exhibition at the Agricultural Hall. Messrs. Griffiths, Berdoe, and Co., Limited (the Sanitary Paint Company), inform us they will have a good exhibit of all their various manufactures—Silicate Distemper, Griffiths' White, Petrifying Liquid, &c., &c., all of interest to the painting trade. Messrs. Randall, Bros. are also exhibiting their specialities. The Torbay and Dart Paint Company will likewise have a stand there, and the Albissima Paint Company have made arrangements for a good show of their now famous Albissima Paint, ready-mixed colours, &c., all of which should be noted by visitors interested in such things. The Silicate Paint Company (Messrs. J. B. Orr and Co.) are showing, in addition to their ordinary display of paints, pigments, &c., &c., a room fully decorated with their paints and Duresco, from which some of our friends will be able to take a hint. We may also expect a brave display from Messrs. F. Walton and Co., of Sunbury. Messrs. Walton's stand is always one of the most interesting in the Exhibition, and should not be missed on any account. Last year the Papier Maché Company made a bold bid for public favour by their exhibits, and decorators especially should not leave the building without seeing their stands. The Exhibition promises to be of wider interest and greater usefulness to the trade it represents than any of its predecessors. In addition to the whole of ground-floor space being let the greater part of the gallery space has been let also; and, with the additional attraction of the Journal of Decorative Art Exhibition, this Exhibition should out distance all its forerunners both in usefulness and attractiveness.

We have before alluded to the great advantages possessed by Randall's Liquid Paint Driers, and as the season has now come round when most people are making their purchases, we would again draw the attention of the painting trade to the desirability of sending a sample order on to Messrs. Randall Bros. We can only reiterate our former statement that it is *the best liquid drier we have ever used*, and we could not speak in higher terms of it if we desired to do so.

We have received from Messrs. McCulloch and Gow, decorators, of St. George's Road, Glasgow, a work entitled "Interior Decorations." Our space will not admit of any detailed notice this month, but we may say *en passant* that the book has much of merit in it. The one to hand, however, suffers from an absence of numbers on the different sheets for purposes of reference, and there is no descriptive matter in connection with it. Perhaps before our next issue we shall receive further particulars from the publishers.

ANSWERS TO CORRESPONDENTS.

J. O., Huddersfield.—Your letter was unaccountably overlooked last month. In reply we would recommend you to wash the gold with hot water repeatedly. This is the only remedy we have found efficacious. We have never found any advantage in using spirits of wine with the size, but rather the contrary. We have over and over again obtained a bright burnish with only one coat of gold, and faulting, by no other means but that which we have described. When the first coat of gold is on you will find it advantageous after being faulted and polished with the cotton wool to wash once or twice before putting on the second coat of gold leaf. When once the gold is well polished with the wool and washed, it should be very difficult to remove, even if there is not a particle of size between it and the glass, in fact the less size there is the closer will it stick to the glass. In our next month's number we will give the result of an experiment we intend to try to obtain the effect you desire.

J. A. W.—You will find your question as to the supplying of marble patterns answered in our March number.

H. B., Northampton.—Our correspondent wishes to know the best, quickest, and most effective means of removing old letters from wire blinds without rusting and injuring the wire. We know of nothing that will effect the object desired so effectually and so quickly as using pure unadulterated caustic soda. This is the most powerful and quickest paint solvent we are acquainted with. That portion of the blind having the letters on which it is desired to remove should be placed upon a piece of board so that it will lie flat and close to the wood. The caustic soda should then be put upon it with a fibre brush (as it will destroy hair brushes quickly), and being close to the board the soda will not run away as it would do without the board. A very short time will suffice to destroy the paint and turn it into mere mud, which must then be washed away with plenty of clean water. When only a portion of the letters are to be removed it is best to use a piece of wood of the same width as the part to be operated upon, so as to confine the soda to that part.

P. H., Newcastle-on-Tyne.—In answer to your first question, if you will crush some good pipeclay into a very fine powder and make a pounce bag with it, and then dust the polished surface of the plate with it, you will find the objection removed, and you may sketch the letter and write upon it with ease. The dust will brush off or may be washed off when your letters are dry. We do not clearly understand your second question as to whether you mean the black for grounding the coffin plates or for writing them, but conclude that you mean for painting them for writing upon; if so, and you write with black upon black, either one or the other must be flat or dead colour. If you write upon the dead black ground, which is the usual method, then the lettering of black should be written with black japan, or Brunswick black may be used, which dries quicker and with a brilliant polish; but if the letters are to be dead upon a bright glossy ground then the best mixture for the purpose is made with fine vegetable black, turps, and japanner's gold size.

A Young Subscriber, Sedbury.—There is a solution into which they plunge glass, which "frosts" or obscures it at once. Many globes are done that way. We think it is the fluoric acid with the spar thrown in to make it keener in the biting. We do not quite understand what acid you refer to, nor what you really mean by the term frosted glass. There is ground glass and obscured glass. The first is ground on one side with sand or emery powder, or by the sand blast; but obscured glass or more properly, enamelled glass, is prepared by coating it over with a semi-transparent white flux, which is afterwards secured to the glass by the heat of the muffle. The term frosted glass, as we understand it, applies to the imitation of the rime or frost upon the glass in winter time. This is imitated by coating the glass over with Epsom salts mixed with beer. With regard to your question how to remove varnish spots from frosted glass—by which term we suppose you mean ground glass—a strong solution of common washing soda mixed with some stiff lime (newly slaked lime is the best) placed upon the spot will soon dissolve varnish, and may then be washed off with clean water.

JOSEPH MASON & CO.,
MANUFACTURERS OF
VARNISHES, PAINTS, & COLOURS,
5, Derwent Street, and Burton Road,
DERBY.





D ANNUAL PRIZE COMPETITION.

ROOM. SECTION VII. CLASS G.

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: 15, ST. ANN STREET, MANCHESTER.

MONTHLY.] MAY. [PRICE 7d.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First the earnest and intense seizing of natural facts: then in ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

THE "JOURNAL OF DECORATIVE ART" SECOND ANNUAL Prize Scheme, Competition and Exhibition, APRIL 2-14, 1883.

WE have now the pleasure of chronicling the second of the Exhibitions and Competitions instituted and held under the auspices of this journal. The Exhibition just closed was, as our subscribers are aware, on a more extended basis and of a wider scope, both in the various sections or classes into which the competition was divided, and in the increased amount offered as money prizes, than the first effort we made. Looking at the value of some of the prizes, we think we had some grounds to expect a better response than was actually made. Again, as last year, there was a marked difference between the entries and the fulfilment—we had eighty-four entries under the different sections, and out of this number, twenty-six or nearly thirty per cent failed to send in their work. Had the twenty-six who were unrepresented have sent in their works, not only would the interest and importance of the Exhibition have been largely augmented, but the large wall of the south gallery would have been "too strait" for us. This difference between promise and performance appears to be inevitable. One subscriber who entered into no less than four sections, failed to send to any one of them, pressure of work the last few weeks preceding the Exhibition being the nominal cause. This no doubt operated in many other cases, and sickness would explain the absence of others. Notwithstanding the defections, however, we had a good representative Exhibition, and one in which some very excellent work was shown. It does not come within our province to attempt any description here that will be found in the exhaustive report of Mr. Robinson, but our duty would be undischarged if we failed to render our sincere thanks to all concerned. It would not have been possible for us to have offered to the trade so valuable a scheme without the co-operation of others. And to all those firms who so generously provided us with the wherewithal to carry out the scheme, the united thanks of the Painting trade, the competitors, and ourselves, are due.

The following are the names of the firms who offered prizes, with the amount of their donations:—

	£	s.	d.
Messrs. J. B. Orr and Co.	30	0	0
Messrs. Wilkinson, Heywood, and Clark	30	0	0
Messrs. Crowden and Garrod...	12	10	0
The Yorkshire Varnish Co. ...	15	0	0
Frederick Walton and Co., Ltd.	15	0	0
Mr. T. C. Stock	15	0	0
W. Sutherland and Sons	10	10	0

Such a competition cannot fail to have beneficial results; the putting forth of effort alone is an educational agency of no mean worth even to those who have been unsuccessful; the experience thus gained, though it be only of their own shortcomings, is of great value; indeed, where we accept our failures as spurs to greater efforts, we have reason to be thankful for them, and it is only when we allow them to discourage us from further attempts in the path we are seeking to follow, that they are prejudicial. He who under such circumstances does not

> "bate one jot
> Of heart or hope; but still bears up and steers
> Right onward"

is the man for great achievements.

> "Sweet are the uses of adversity,
> Which, like the toad, ugly and venomous,
> Wears yet a precious jewel in his head,"

says Shakespeare, and the truth holds good for all time.

The general level of the work sent in was, compared to last year, decidedly of a better class and on a higher plane. It remains for us to add to our acknowledgements to the prize donors, our sense of our indebtedness to Mr. Robinson for his kindness in adjudicating, and yet still more for the great trouble and care which he has expended on the report of the prize works and of the leading contributions. To gratuitously crowd into a busy life an extraneous duty of the extent that this has been to Mr. Robinson, is expressive of great interest in the cause of Decorative Art, and we can only reiterate the obligations we are placed under to Mr. Robinson for his kindness.

To all the Prize Winners, and to those "Commended," we shall shortly forward a handsome Certificate, suitable for framing.

PRIZE WINNERS.

THE CHARLTON PRIZE (Messrs. J. B. Orr & Co.), value £30 0s. 0d.

SECTION I., CLASS A.

First Prize, £12 10s.—Richard Glazier, Rochdale.
Second Prize, £5 10s.—McCulloch & Gow, Glasgow.
Certificate of Merit—J. Lamb, Bayswater.

SECTION II., CLASS B.

First Prize, £8 — McCulloch & Gow, Glasgow.
Second Prize, £4—J. Townend, Rochdale.
Certificate of Merit—J. H. Broadbent, Shaw.

SECTION II.

THE WILKINSON, HEYWOOD, & CLARK PRIZE, value £30 0s. 0d.

First Prize, £20 — Richard Glazier, Rochdale.
Second Prize, £10—E. W. Beech, Doncaster.
Special Prize, £3 10s.—J. Lamb, Bayswater.

SECTION III.

THE YORKSHIRE PRIZE (The Yorkshire Varnish Company), value £15 0s. 0d.

First Prize, £10—W. J. Cloake, Southwark.
Second Prize, £5—F. Lardner, London, N.
Certificates of Merit—J. Law, Darlington; J. Lamb, Newcastle; J. Crafer, Bristol.

SECTION IV.

THE CROWDEN & GARROD PRIZE, value £12 10s. 0d.

First Prize, £7 10s.—J. Edwards, Burnley.
Second Prize, £5—D. McArthur, Barrhead.
Certificates of Merit—(To an Exhibitor who would not leave his name); J. Marks, Belfast.

SECTION V.

THE SUNBURY PRIZE (contributed by Messrs. F. Walton & Co.), value £15 0s. 0d.

First Prize, £10—T. Cantrill, Manchester.
Second Prize, £5—W. C. Cunliffe, Blackburn.
Certificates of Merit—J. W. Foster, Accrington; Wm. Wilkinson, Southport.

SECTION VI.

THE BRISTOL PRIZE (contributed by Mr. T. C. Stock), value £15 0s. 0d.

First Prize, £10—Walter J. Pearce, London.
Second Prize, £5—H. H. Keeling, Nottingham.
Certificate of Merit—C. Clements, Nottingham.

SECTION VII.

THE SUTHERLAND PRIZE, value £10 10s. 0d.

First Prize, £7—Richard Glazier, Rochdale.
Second Prize, £3 10s.—(Transferred to Section II.)

AWARD OF PRIZES

BY

MR. G. T. ROBINSON, F.S.A.

SECTION I.—CLASS A.

THE CHARLTON PRIZE, value £30, contributed by Messrs. J. B. ORR & Co. For the best designed and executed Decoration for Frieze, Filling, or Wall Space, Dado and Door Panels for Dining Room.

For this competition five artists entered—

MOTTO.	AWARD.
Crede Signo.	1st Prize.
Spes.	2nd Prize.
⊙	Commended.
The Ochil	
Silex	

NOTES.—The design by "Crede Signo" is renaissance in character, a little too much charged with the usual motives promulgated by the usual course of study in the schools of design under the direction of the Department and showing more adaptability than originality, but it is very carefully executed, and exhibits in a remarkable degree a knowledge of the functions of stencil work. All the main lines are well formed by the necessary ties, and if in the subsidiary ties a second stencil had been introduced to put them out the execution would have been perfect. Let it be done as carefully as it will, hand stopped ties always show, in consequence of the dragged surface of the paint, reflecting light at a different angle to the stippled work, produced by the stencilling brush, and the use of a second stencil for this purpose enables a change of form and tone to be advantageously introduced. The door panels are exceedingly clever in touch and are generally harmonious in colour, though the local colour of the naturalistically treated birds and fruit is somewhat too pronounced for the colour of the convential motives. Again, these latter are devoid of originallity in treatment and design. "Crede Signo" will do well to invent detail for himself, instead of borrowing it so largely, and his work shows that he has artistic feeling enough to do this ably.

"Spes'" contribution is very carefully executed. The wall tone is a little crude and the design is somewhat mixed in character. The door panels which simulate ivory inlaid in ebony are exceedingly carefully executed, and the curves remarkably true.

⊙ is not quite harmonious in colour, the citrine tones being somewhat too yellow to quite balance the other colourings. The architectonic treatment of the frieze is very well conceived, being divided into triglyphs and metopes, which give a quasi-classic force and dignity to it. The ornamental parts lack originality and are too reminiscent of many wall papers.

"The Ochil" is greatly overcharged with ornament and the dado looks more like a Brobdignag design for a carpet border than the surface of a room. This, indeed, is a common fault in these dado-doing days. The true function of a dado is to support and protect the wall, and to overcharge this portion, which is less seen than any other, is a solecism in art. The simplest of ornament seen through the open backs of chairs, or dodging between other articles of furniture, suffers enormously; but when an overcrowded mass of ornament is thus broken up, nothing but confusion is the result; labour is wasted and all the rules of common sense—the main rules of true decoration, are violated.

Of "Silex," it is wise and kind to be silent.

SECTION I.—CLASS B.

For the best designed and executed Decoration for Staircase, Dado, Frieze, Dado border, and wall space. Four competitors entered for this class.

MOTTO.	AWARD.
Spes.	1st Prize.
Suo Marte.	2nd Prize.
Coup d'éssai.	Commended.
Forth.	

NOTES.—"Spes" submitted a very ably designed and executed section of the raking wall of a staircase treated in the Japanese manner with plenty of plain colour on the main wall, and exhibiting that very rare virtue, the knowledge of when to leave things alone. Most decorators think that the

more ornament they can crowd on to their surfaces the better their work is ; but he who can produce the best effect with the least effort is the wiser man, and " Spes" has kept himself well within bounds. When he has used ornament he has used it well and wisely, and the distribution of his colour is equally clever with the distribution of form. It is a work of very great merit.

" Suo Marte" treats stencil work very cleverly, but the design is much better than the execution, which is careless and unclean. His foliage is, however, too much of the same type throughout—that long quasi-Greek type much favoured of late by Mr. Lewis Day. Soft, flowing lines are good and graceful, but they need to be used with other and more rigid forms. Now, in " Suo Marte's " design, the Dado, Dado band, Filling and Frieze, are all charged with the same form, producing a sense of weakness which could easily have been converted into grace by using some more angular and strongly built form in the Dado band and Frieze. This fear of change of motive is a common source of failure in modern decorative art, and I therefore venture to point it out as marring a good design.

" *Coup d'éssai*" recognises the true treatment of stencil work in an able manner, but this design is more suited for a wall proper than a handwrought decoration, a frequent failing. Specially executed decoration, though legitimately seeking mechanical reproduction of its parts, should avoid a perpetual recurrence of this, and should emphasise portions of its work instead of distributing it equally. Labour would be thus saved and the effect removed from the *rôle* of purely mechanical reproduction. The lowest band of ornament, which should have been the strongest, is the weakest. Indeed, a plain broad band without any ornament at all would have been the wiser treatment of this portion.

" Forth" exaggerates all the faults of " *Coup d'éssai*" without any of his redeeming merits, and is, moreover, bad in colour.

Section II.—Class C.

The Wilkinson, Heywood, and Clark Prize, value £30, for the best designed and executed decoration for drawing room door, has called forth seven contributors.

MOTTO.	AWARD.
Speros.	1st Prize.
Tweed.	2nd Prize.
Como.	3rd Prize (being a special prize given by Messrs. Sutherland for reasons hereafter stated.)
Ad Captandum.	
Lilly.	
Will o'th' Wisp.	
Country Painter.	

" Spero's " work seems so like that of " Crede Signo," in Class A, section I., that there is but little doubt that it is by the same hand. There is the same care in selection of well-known types of renaissance ornament from well-known sources, the same want of invention, the same handling in execution, and the same over-heightening of the lights; but with all these it is by far the best of the works submitted. If, with his facility of execution and his knowledge of ornament, " Spero " will go to nature and conventionalize natural forms for himself, he need not hope in vain.

" Tweed " strikes out a peculiar path, and his flat ornament in light tones, bounded by a dark outline, has much merit. It is rather reminiscent of the school of Owen Jones—an excellent school too. The harmonizing of the colours is fairly well achieved, and there is evidence of a strong feeling for truly decorative work. " Tweed " should try the same flat treatment in tones sufficiently strong to do without the adventitious aid of the boundary line, which is but a crutch, an aid to the halting student; but an embarrassment to the robust one. It is always found in the immature work, but rarely in the mature work of any period.

" Como " is very commonplace in design, but it is harmonious in colour, and very careful in execution. It meets well a very ordinary and every day want, and will suit that very large number of people who want something quiet and good, but who are afraid of anything beyond their own range of knowledge. I have awarded a prize of £3 10s. to this exhibit which Messrs. Sutherland have permitted me to withdraw from the " Sutherland Prize," there being no competition in Section VII. Class C. worthy of receiving a second prize in this class.

" Ad Captandum " has made a fatal error in endeavouring to draw the figure ; the camei which form the centre of his panels, being execrably bad.

" Lilly " is crude in colour and bad in form.

" Will o' th' Wisp" and " Country Painter " are both far too ambitious. They wish to run before they can walk, hence they fall. Still " in great attempts 'tis great to dare," and ambition is a noble quality. If they will learn to draw and learn to paint they will thereby learn to be much more moderate in their aims, and I hope to meet them on some future occasion in more modest guise.

Section III.—Class D.

The Yorkshire Prize, contributed by the Yorkshire Varnish Co., for the best executed set of six Marble Panels.

No less than thirteen competitors entered in this section.

MOTTO.	AWARD.
Labor Omnia Vincit.	1st Prize.
Time Flies.	2nd Prize.
Honesty.	Commended.
Nova Castra.	Commended.
Marmor.*	Commended.
And the rest nowhere.	

By very far the best was " Labor Omnia Vincit.' Indeed it was unsurpassable, and Mr. L. Alma Tadema, R.A., himself, facile as he is in representing marble, might learn a lesson from this competitor. Not only was the mineralogical character of each specimen accurately studied, but the translucency or opacity of the various portions of the same marble was most intelligently observed, and most accurately simulated. A small table which accompanied this exhibit, though not included in the competition, was a marvellous piece of imitative painting, and with the

*This set bore neither name nor motto, so I attached the name Marmor to it for distinction's sake.

*

exception of Mr. Kershaw I know of no one who could approach the excellency exhibited by this competitor.

"Time Flies" contributed an excellent series, his example of Genoa Green being particularly noteworthy.

The three other competitors, whose exhibits I have ventured to commend, were but little behind "Time Flies," but the majority of the remainder so far "o'erstepped the modesty of nature" that their efforts gave more a caricature than the character of the products they aspired to imitate.

SECTION IV.—CLASS E.

THE CROWDEN AND GARROD PRIZE for the best executed set of six Grained Panels, oak, mahogany, walnut, maple, pollard, oak, pitch-pine, or satinwood, called forth a still larger competition, no less than twenty exhibitors having responded.

MOTTO.	AWARD.
Art.	1st Prize.
Scotia.	2nd Prize.
Armorial Seal in red wax.	Specially commended.

And the rest but ordinary, excepting indeed some few which were very bad.

"Art" was particularly good in the hardwood series and "Scotia" and the series bearing the armorial seal were so nearly equal that it was a matter of serious consideration as to which should take the second place. The general range of excellency, however, was more marked in "Scotia's" set, though in some individual specimens the armorial seal bore the palm. There was an incomplete set, consisting of three only, by J.M.B. which, if the remaining three had equalled those exhibited, would, however, have undoubtedly taken the second place. Some of the remaining sets had one or two fairly good specimens, but as a rule oilcloth and not wood seemed to be the source of inspiration, and many of these imitated bad oilcloth fairly well. May I venture to give one word of advice to all grainers? that is, try and observe the general character of the wood you desire to imitate, and not only some little peculiar bit of a very rare and choice piece. Nature's cake is not all plums. She wisely places them in a wholesome quantity of paste.

SECTION V.—CLASS E.

THE SUNBURY PRIZE, offered by Messrs. F. Walton and Co., Ltd., for the best decorated specimens of Lincrusta Walton. Dado, Filling and Frieze, to be treated for a Dining room.

MOTTO.	AWARD.
Toujours Preste.	1st prize.
W. W. C., Monogram, in Star.	2nd prize.
T. J. W., Monogram,	Commended.
Suum Cuique.	
Melody.	
Spes.	
Tom o'Shanty.	

"Toujours Preste" produced a very harmonious treatment of a small pattern, the colouring of the Dado being particularly excellent, a point in which many fail.

W. W. C. achieved a novel and unusual effect by very ingenious means, and especially noteworthy was his varnishing of a sunk pattern in the ground, by which a second plane of decoration was obtained and movement of the pattern produced. This would greatly relieve the monotony of a large surface of low relief ornament and give interest to the wall.

T. J. W. boldly went in for a black ground—a very vigorous and brave attempt—but he did not quite succeed in working up the remainder of his scheme to an adequate pitch, and "Suum Cuique" weakened his scheme by an over use of gold in the Dado.

SECTION VI.—CLASS F.

THE BRISTOL PRIZE, contributed by Mr. T. C. Stock, Victoria Street, Bristol, for the best designed decoration for Wall Paper, for staircase, showing Dado (on the straight and rake) Filling and Frieze.

Five designs were exhibited in competition in this section—

MOTTO.	AWARD.
Unity.	1st. Prize.
H H. K in a shield.	2nd Prize.
CC⟶⟩	Commended.
Ægyptian.	
Pencil Stick.	

The design by "Unity" had a simple filling formed by vertical stems of bamboo, whence issued gracefully and naturally drawn sprays of foliage. The dado was arranged in the ordinary panelled form which has been so much worked upon of late, and which, though looking pretty enough in the hand, has a very monotonous effect when hung, and like almost all dados now-a-days, was overcharged with ornament. The execution was clever and workman-like, but the design lacked invention, and was somewhat common-place.

"H. H. K." adopted the "masoned" treatment of blocks, each block being separated by a mosaic band, and the junction of the alternate blocks charged with a floral ornament. This dado was also panelled, and partook of the ordinary character.

"——" had a good ordinary simple filling, but was in no way remarkable.

"Ægyptian," on the contrary, was very remarkable for its perverted ingenuity, and its absurd attempt to compress "all the wisdom of the Egyptians" into a staircase paper.

"Pencil Stick" was of the feeblest character.

There was sent in for this competition, but disqualified by the fact of its non-arrival in time, a remarkably clever design by "Jack." Resembling much, in the elements of its composition, the design contributed by "Suo Marte," (Section I., Class B.) it was far cleverer, and the drawing of some of the conventional blossoms which formed the repeat points, was remarkably good. "Jack" is a very able designer and an excellent draughtsman.

SECTION VII.—CLASS G.

THE SUTHERLAND PRIZE, for the best design in Black and White, for the decoration of a Dining Room Door, Architrave, Wall Space, Dado Border, and Frieze.

MOTTO.	AWARD.
Dum Spiro.	1st Prize.
Leno.	
Rough and Ready.	
Athelstane.	

"Dum Spiro" was particularly well drawn, much of the ornament—especially that of the dado and door panels being a free treatment of natural forms most carefully observed and expressed. The wall filling was a little too like a paper hanging, in what is insanely called "the Early English" style, but the doorway was architecturally treated and in good proportion.

I am sorry to say that, with the kindliest intention, I could find no excuse for awarding any second prize in this class, so with the permission of its donors I transferred it to Section II, Class C. The other drawings sent were singularly weak and lacking in even the most ordinary observation, the doorways being drawn with the wildest disregard to proportion, and of all men the decorative artist needs be the most observant. "Leno's" design was very feeble, and his frieze would have been something terrible in execution. "Rough and Ready" had on sense of proportion in his ornament, which was of the most ordinary character and singularly misapplied; and "Athelstane" gave us a cosmography of all created things; birds and squirrels posed at stated intervals in the frieze; fish, flesh, and fowl displayed on the dado, and supposing such a design had the misfortune to be executed it would be as egregiously costly as it would be inappropriate.

In appending the above notes I have had but one aim, that of encouraging those, who were, in my judgment, pressing forward in the right track, and warning those who I thought were straying from it. I do not dogmatise or assert that that which I suppose to be the right track is the only one leading to success in art. But the Editor of *Decorative Art* having called upon me to award the prizes in the order of merit, I have done so to the best of my judgment. Decorative art is playing a much larger part in the art history of our country than it has ever done before. It is no longer the plaything of the dilletanti and the rich. It is the home friend of all classes now, but it has two enemies—Empiricism and Extravagance. Taste varies as much as language. It may be very good and expressive, but not understood. Yet because it is not understood it should not be condemned as foolishness, and this the Empiric in his assumption of wisdom does. Taste need not be costly. Indeed, true taste cannot exist where extravagance reigns, and the true function of the decorative artist is to do all things in moderation, to be sparing of his labour, but to let his labour both of hand and brain be of the very best. Therefore the decorative artist who overcharges his work with ornament and renders it unduly costly, retards by this extravagance the progress of the art he follows.

I have written, perhaps, too plainly on this matter, but I feel very sincerely the importance of the work we are all trying to do, and because I feel this I have thus written.

GEO. T. ROBINSON.

NOTICE.—In consequence of the pressure on our space, through the reports of the *Journal of Decorative Art* Exhibition, and the Building Trades' Exhibition, we are compelled to defer our Technical Chapters on Decorative Processes and Chapters on Graining, Notices, &c., to our next number.—ED. *J. of D. A.*

THE FOURTH ANNUAL BUILDING TRADES EXHIBITION, APRIL 1—14, 1883.

FIRST NOTICE.

YEAR by year it becomes more difficult to say much that is new or fresh in regard to the general exhibits at these annual displays. In the main, we find the same faces, the same stands, the same exhibits year after year; varied by one or two new things which give a savour of freshness to what otherwise might become flat, stale, and unprofitable.

The general consensus of opinion seems to be that to retain the popularity which has hitherto attended these displays some fresh departure must be made if the Exhibition is to continue as an "Annual." Our contemporary, *The Builder*, makes a valuable suggestion to the effect that the promoters of the Exhibition should seek to give freshness to the display by offering some inducements to inventors of novelties of a useful kind, germane to building construction, and that these should be duly adjudicated upon and awarded certificates of honour and substantial money prizes. This, the *Builder* thinks, should not be done more frequently than once in every five years. It is evident that some new element must be infused into it if it is to continue to attract and interest those most immediately concerned. Mr. Shrapnel's arrangements were of the most complete kind, and generally things worked more smoothly than on any prior occasion. That this was the evident sense of the exhibitors was manifested on the evening of Friday, the 13th inst., when, at a complimentary dinner, Mr. Shrapnel was presented with an illuminated address expressive of the esteem and goodwill of the different firms who had been exhibiting, for his courtesy, and devotion to their interests—a tribute we heartily endorse. Of the general exhibits there are many that lie outside of the scope of the immediate interests represented by this journal, and with them we shall not attempt to deal; but, whatever we find of interest to the decorating and plumbing trades (for the great majority of our subscribers combine both these branches of the building trade) we shall endeavour to describe it as lucidly as we can.

Messrs. Griffiths, Berdoe, and Company, Limited (The Sanitary Paint Company), had a very good show of their specialities. Conspicuous on each side their stall were some screens of Lincrusta Walton, used as a ground work whereon to display the various colours the firm make. Of the effect, we could only exclaim with Dominie Sampson, "Prodigious! Prodigious!" "Solomon in all his glory" was not to be compared with them. Seriously, we think it a mistake in policy, and not even just to the exhibitors themselves or their products to display them in this way, far better results would be obtained—we now speak in a commercial sense—by exhibiting the colours painted on plain long strips.

The majority of visitors would run away with the idea that these were specimens of Lincrusta decoration that were being exhibited. We saw another firm had made the same mistake; apart from this, however, the colours themselves were very beautiful, some choice tints and shades being found amongst them. In addition to the colours was shown the now celebrated non-poisonous pigment "Griffiths' White." This constitutes the company's chief claim to the attention of painters and decorators. "Griffiths' White" possesses great covering properties and purity of colour; we speak from actual experience of its good qualities, having used considerable quantities of it; it compares favourably with White Lead in point of price—viewed in relation to its greater covering qualities, and it has many claims on the good offices of the trade. Of course the stand would be incomplete without specimens of the petrifying liquid for damp walls, a porous jug, coated with the liquid, proving to a demonstration its resisting qualities to the effects of water, by holding a quantity of the gentle element without in any way losing it, the coating over the porous biscuit being quite sufficient to render it water-tight. The stand would lack rounding off and finish did it not contain specimens of Griffiths' Patent Enamel. This enamel is a splendid vehicle to use for inside decorative work where a high finish is desired at a small cost, and its lustre is only equalled by its hardness. The company also showed some good clear specimens of their varnishes; altogether the exhibit evidenced the determination of the firm to keep apace with the demands of the times. Immediately adjoining this stand was the exhibit of **the Papier Mache Company**, a very tasteful and worthy display. The products of this firm are such as claim the attention of all decorators. The special exhibit took the form of a small drawing-room in the Adams style, the door, dado, and cornice all being of papier maché, whilst the ceiling and cornice was of fibrous plaster, the whole being painted and picked out in tints; the effect was very good, and suggestive of the many valuable uses the decorator can put these to. On the stand were ceiling and cornice in fibrous plaster; dados, doors, and overdoors, in papier maché and wood, suitable for drawing-rooms; chimney pieces of various design; papier maché finger plates and other door furniture; various designs and sizes of trusses, cornices, capitals, royal arms, ceiling flowers, mouldings, overdoors, and picture frames, the majority of which the company issue special catalogues of. The finger plates are very effective, and should find a large field for their use; and very decorative results can be obtained by using the pateras and corners for panelled and ceiling work.

Proceeding up the same avenue we come to the stand of **the Silicate Paint Company** (Messrs. J. B. Orr and Co.) Here we observed a new departure, in the form of a small canvas room decorated inside with Duresco. It is superfluous almost for us to say anything more about Duresco. We have long ago proved its valuable qualities, and have again and again alluded in the columns of this journal to its usefulness for all kinds of simple decorative work, and were anything needed to show its qualities as a decorative agency for high-class work, this could be found in the screens shown in Section I., Class B. in the *Journal of Decorative Art* Competition; the 1st Prize Screen, by Messrs. McCulloch and Gow, of Glasgow, being quite a work of art, and earning high commendation from the adjudicator. What attracted most attention, however, on the stand, were some specimens of the "Charlton Enamel," which were simply splendid, and for their lustre and smoothness surpassed anything of the kind we have seen anywhere. This enamel is made in all colours and shades, and is of the greatest use to the decorator. There were, of course, specimens of the celebrated Charlton White. Charlton White occupies a most favourable position in the market as a non-poisonous pigment, possessing great covering power and permanency; and this claim rests on no insufficient foundation, but can be substantiated by "hard facts." We may note that the objection we have heard advanced against it of becoming disintegrated when in the can has now been removed by the recent improvements introduced into its manufacture by Mr. Orr, and it is now ground to a fineness equal to any white lead we know of. The company are just issuing some new books of their various tints of enamel paint and Duresco, which we would recommend the trade to apply for, and we may also state that the company supply "Duresco" in colours for stencil purposes in 1, 2, and 3 lb. tins, so that all the colours required for any job can be purchased from the tint book, ready mixed, without any trouble.

The next stand we came to in our peregrinations was the imposing display of **Messrs. F. Walton and Co.**, of Sunbury. We have seen this firm's stand displayed to much greater advantage than it appeared this time. In one or two instances the colours were injudiciously chosen, with the result that the material itself suffered in estimation of many. Judiciously treated, "Lincrusta" is of great value as a decorative medium, and taken in conjunction with its great sanitary qualities, it is second to no other wall covering before the public. It is gratifying to find that each day sees a further extension of its popularity and use.

Mr. Henry Conolly's stand (of Hampstead Road), has come to be regarded as one of the largest, most varied, and useful of the exhibits; it has for the last three exhibitions occupied the same site and taken the same general form. On a most extended scale, arranged in a very attractive manner, it has come to be looked for as one of the principal stands to be visited. The range of Mr. Conolly's undertakings is very extensive; every description of plumbers and brass-fitters' work is manufactured by Mr. Conolly, who, in addition, is a large importer and dealer in glass, oils, colours, lead, and zinc. Mr. Conolly is also a sanitary reformer, his improved valve closets being a great improvement on the old systems of pans; those we saw and carefully examined were simply perfect in their action, the fittings being so true and adjusted with such precision that the slightest touch is sufficient to set the water flowing like the falls at Lodore—"with a rush" and impetuosity that quickly clears out whatever is in its way and replaces it with clean water In connection with this must be mentioned the



1st PRIZE DESIGN FOR DECORATI



D ANNUAL PRIZE COMPETITION.

NG ROOM. SECTION VII., CLASS G.

new patent valveless, noiseless, and leverless "Syphon Water Waste Preventer." Apart from the Ball Valve, it will be seen from the Drawing that there are absolutely no Valves, Leathers, Rubbers, or Joints, to get out of order, it syphons the contents with great rapidity, the velocity of the flush increasing to the end. The Overflow Arm is always charged with water, and always flushed every time the closet is used. The illustrations* we give are so explanatory of themselves that no more words from us are needed. Mr. Conolly's Acme Needle and Spray Bath and his Bachelor's Bath are both excellent specimens of careful workmanship and ingenious contrivances; the workmanship right through leaving nothing to be desired. Mr. Conolly also caters for another branch of the decorator's business, stained-glass being a conspicuous part of his exhibit, and on the bevelled cornice surmounting the stand were to be seen numerous specimens of the variety of glass Mr. Conolly supplies, a great deal of it being of a very high class, and others of a popular and more general description. We shall, in our next number, give illustrations of some of Mr. Conolly's work.

A stand of considerable interest to all the visitors was No. C 109 and D 114, occupied by the **Patent Waterproof Paper and Canvas Company Limited,** Willesden. The application of paper to all sorts of purposes, of late years, has gone on with such rapidity; that we are not surprised at any fresh development we find it put to. We believe that one enthusiast has even sought to turn it into an edible; however, the fact remains that from the most delicate of uses it can be turned to the most utilitarian. From the perfumed crested note of the "exquisite" to waterproof roofing is a wide reach, yet, nevertheless, here it was demonstrating its own power and usefulness. By mechanical processes, and by induration with damp resisting mediums, the paper is rendered absolutely waterproof, and the company assert damp proof, and is made in all thicknesses, from the strength of ordinary brown paper, for lining damp walls, to $\frac{3}{16}$ and a $\frac{1}{4}$ inch. thick for roof and wall purposes. We may note that the whole of the new buildings at the forthcoming Fisheries Exhibition are being roofed with this new material, a sufficiently practical test to convince the most sceptical. The uses of it that appear to specially appeal to the decorator: are first, the application of the thin paper to damp walls instead of the ordinary pitch paper, and second, the employing the thicker makes, for such purposes as screens, door panels, frieze panels, and many other uses of a like nature.

Messrs. Jeffrey and Co.'s Stand has come to be looked for as one of the pleasant spots of the Exhibition. It is always tasteful in arrangement, and good in the selection of the patterns shown.

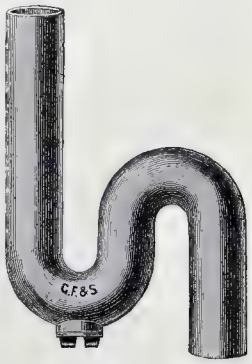
Messrs. C. Hindley and Sons, Stand D 135, of Oxford-street, W., exhibited a large selection of their well-known Japanese leather papers, chintzes, wood mantels, furniture, &c., making a very pretty, attractive, and tasteful show.

Messrs. George Jackson and Sons, 49, Rathbone-place, W., exhibited specimens of their now well-known fibrous plaster decorations for ceilings, cornices, and various other purposes of a decorative kind. This was one of the most artistic and decorative stands in the exhibition. The firm has such an established reputation for excellence of workmanship and high-class design, that we always expect to find these qualities in their work; and, we may add, never look in vain. The designs are of the highest character, and the execution all that can be desired.

The Albissima Paint Company had a very conspicuous and noticeable stand, exhibiting the various and numerous purposes to which their paints can be applied. The stand itself is an architectural structure of considerable merit, and was painted white to show the purity of the paint manufactured by the firm. The whiteness is remarkable. The company are now sending out their paints in tins, ready mixed in many shades, and have issued a beautiful tint card showing the different shades they are manufactured in. These the company will supply to any respectable decorator applying for them. The Albissima paint is ground to two degrees of fineness. The first, for inside work, ground as fine as any pigment in the market, and the second, for all exterior purposes, not ground quite so fine. In ordering Albissima, therefore, it is desirable to state the purpose it is intended to be used for. Albissima comes to us backed by the recommendations of many well-known employers in the decorative business, by scientific men and sanitary reformers, and it complies with the demand of the advanced school of sanitarians, being a non-poisonous paint.

The Torbay and Dart Paint Company exhibited a goodly show of their celebrated Torbay paints, but as we so recently spoke at considerable length on the manufactures of the firm we have no need to traverse the ground again.

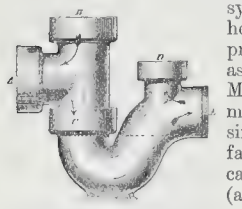
Messrs. George Farmiloe made a speciality in their exhibit of American drawn lead traps, which possess many recommendations and advantages over those hitherto in use. In the first place they are "drawn," and the result is that the strength of the trap is equal in every part, and better adapted to meet the fluctuations of the temperature in consequence of the evenness of the metal. The annexed woodcut is illustrative of one out of a number of forms these traps assume; they have already found for themselves a very large market, at which we are not surprised. Messrs. G. F. and Sons also showed some good specimens of lead glazing, mostly of a simple character, though they do every description of stained glass work, and are willing to submit designs on the shortest notice, and give liberal



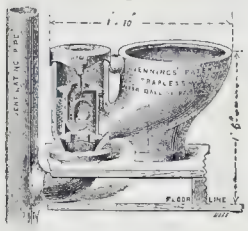
* The blocks for these are not to hand as we go to press, and we shall therefore include them in our second notice next month.

margins to the trade. At their stand was seen also a large number of brass fittings for every description of plumbers' work, all manufactured by the firm themselves, and of the first quality of workmanship.

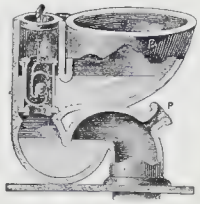
Mr. George Jennings is a sanitary reformer of the purest water (we are perfectly innocent of a pun here), he has carried the practical side of the question to such a pitch of perfection as twenty years ago was not dreamt of even in the wildest flights. Mr. Jennings is *facile princeps* in the ranks of the sanitary reformers, and his reputation is world-wide. Not only has he devoted himself to the production of high-class work for baths, W.C's., urinals, &c., but he has also given us a very simple system of ventilation and heating apparatus, which promises to be as successful as Mr. Jennings' other work. Mr. Jennings' closets demand attention from their simplicity of plan and the facility with which they can be adjusted should (a very unlikely thing) anything get out of order. His drain and cesspool trap is designed with a view to effect the greatest efficiency at the least outlay.



Jennings' Improved Stoneware Ventilating Drain and Cesspool Trap, for introduction at the point of junction with cesspool or sewer.

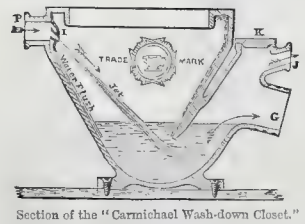


Jennings' Patent Trapless Valve Closet, for fixing on well-ventilated soil-pipes.



Jennings' Patent White Earthenware.

Wash-out closets abound in such numbers and variety that the visitor becomes bewildered amongst them. But we cannot in justice to our readers omit noticing the "Carmichael Wash-down Closet," of which we show a section; the arrangements are of so simple a character that it is impossible for it to get out of order. In addition to the ordinary flush there is an extra jet of water provided, as shown in drawing. The patent is Mr. Buchan's, of Glasgow, and is exhibited by **Mr. Botting,** of Grosvenor Square.



Section of the "Carmichael Wash-down Closet."

The Art Tile, China, and Glass Painting Co., 39, City Road, E.C., had an attractive little stand of their specialities, stained glass, plaques, tiles, &c. This firm have recently removed to their present address, to accommodate themselves to the increasing demands of their business—a very gratifying state of affairs. They do every description of stained glass and tile work, and meet the decorating trade on the most liberal terms. We can cordially commend to the notice of the Trade the work executed by them as being good in design and careful in execution.

Messrs. Bellman and Ivey got together a large and representative collection of specimens of their Scagliola. Notwithstanding the denunciations of many art "masters" and "teachers" the demand for this work continues, and is likely to do as long as the firm preserve the high standard of work they have hitherto maintained.

OUR ILLUSTRATIONS.



E this month publish another sheet of tinted and shaded alphabets, representing the letters No. 3, 11, & 12, on our January sheet of coloured letters. The sheet also contains examples of letters in perspective, and three perspective letters, also a line of letters thicknessed or blocked on straight lines. The next sheets we shall issue, illustrating the art of sign writing, will be printed in one colour only, and will consist of alphabets in various styles of type, such as will be useful to the sign writer and for church work. In issuing the present sheet we wish to say that having, in our February number, entered at some length into the subject of cast shadows in connection with raised letters, we are of opinion that enough has been said to prove to our critics that their strictures were somewhat premature, and as a matter of fact that we were quite right in shading the letters on our January sheet in the manner we have done, and therefore considering what we have before said, and what we are about to say here, that there is no necessity for any more correspondence on the subject. There is, however, one correspondent who writes under the signature of "Hair Pencil," who sent us a sketch of a shaded letter which is the nearest to the actual appearance of the cast shadow of a projecting letter than any we have received. But even this is not quite correct, and it, as well as others sent, which were not near the mark, only serve to support our contention, viz., that all imitations of raised or projecting letters must be shaded conventionally and not as they really are. In our answers to correspondents will be found an answer to "Hair Pencil" which will, we hope, settle the point.

The first alphabet on our sheet is made of the same type of letter as No. 3 on our January sheet. This alphabet is what in its strictest and best sense may be called an ornamental letter. It has an exceedingly graceful outline, and affords—in the play of light and shade on the thickness or blocking—an admirable opportunity for the exhibition of skill of hand in the manipulation, and knowledge in the choice and application of harmonious colouring. And although a highly ornamental letter, yet, it is one that may be easily read by any person who can read. This latter quality being of the first

importance in the choice and use of ornamental letters of any kind. As we have before observed, many so called ornamental letters that are used are so altered from their original shape that they are exceedingly difficult to make out, except by experts. This is a great mistake, as it defeats the purpose for which a sign is used. The first line of this alphabet is supposed to have the light to strike them full on one side, as it often does and as we have seen it do; and in this case if we were to copy the exact appearance and position of the cast shadows on the ground colour they would be of great breadth, and consequently ugly.

As a case in point we give an illustration. Right opposite our window, as we write, is a dwelling-house having a cemented front of an ornamental character. The mouldings of the architrave of the windows stand up above the surface of the main wall about one inch and a quarter. We have been in the habit of noticing the play of light and shade upon this front at various times of the day. At one time of the day, when the sun's rays strike these projections, the shadow thrown by the 1¼ inch projection of the window architrave will be six or seven inches broad, while at another time of the day there will be no shadow cast from them. Now this is exactly the case with projecting letters having the same projection and under the same conditions of light. Here we have shown a broad shadow simply to illustrate the facts we have recorded above, so we see that it is the angle of light which determines the form and extent of the shadow cast by the projecting letter, that is to say, if we must follow out the exact and sometimes eccentric form it takes. The cast shadow of the second line is supposed to come from the back edge of the letter, and this is the point and the only point which has given rise to the remarks and opinions of our critics in relation to our January sheet. The next line is back-shadowed in the ordinary way with the cast shadow starting from the extreme point or top edge of the letter. And this we consider the best way of shading, although the thickness or edge of the letter being of necessity in perspective this shading is not exactly correct. Yet, we hold that it shows and brings out the true shape of the letter much better than the shading from the back edge. If we look at the cast shadow on the second line it has a disconnected and fragmentary look, and does not appear as if it belonged to the letter at all. Now, this objection does not in the least apply to the third line; in these the cast shadow defines and emphasises the shape of the letter, and doing so, answers every purpose in the very best manner to secure the object in view. It should always be borne in mind that it is the letter itself to which all the sense and meaning and usefulness belongs, and that the raising, shading, and ornamenting, with which it is embellished, is a secondary consideration and not the first, as some of our friends seem to think. Therefore we have to consider and use that kind of shading which will best conduce to the bringing out with more prominence the actual shape of the letter, and not subordinate the letter to the shading.

The next alphabet on our sheet is another illustration of sunk letters, in this case the letters sunk with straight side and flat bottom in contradistinction to the bevelled edge alphabet we gave in our February number. We here represent the letters as sunk in the stone colour ground, and shaded with different degrees of the shadow colour (technically called monotone), the result being, with the addition of a little white, to heighten the effect. We do not think this alphabet requires us to say much about it, as it tells its own tale, consequently leaves nothing to explain.

The third alphabet is another style of ornamented letter, variously shaded. The ornament in this example consists only of half circles being taken out of the tops and bottoms, and circles added to all centres of the vertical up-strokes. Apart from this, the letter itself is simply the ordinary Egyptian type, but the taking away and the adding to it of these circles and half circles converts an otherwise plain letter into an ornamental one, and withal one easily readable and pleasing, and yet very different from our first alphabet in its outline. The latter, whose every line is a subtle curve, contrasts strongly with the former, which has a solid block-like appearance, its squareness broken up by the circles, which gives the letter a certain amount of beauty. It will be perceived that the three lines of this alphabet are back-shadowed in three different ways similar to the top alphabet, but these letters being square, the shadows are more decided than upon the curved letters. This is a natural consequence of their shape. Of course the cast shadows need not be painted as broad as they are here shown.

We now come to the line of letters in perspective. It is a usual practice and no doubt a wise one too, for writers on perspective to give minute descriptions and diagrams of the same, showing and illustrating every phase of its working in practice, and writers on sign writing have followed the same course. But this is not necessary in the application of perspective to sign writing. Of course the sign writer would be all the better workman if he possessed a thorough knowledge of the rules and laws of perspective, but it is not absolutely necessary for him to have that knowledge. It is so seldom that he is called upon to paint letters in perspective, that a very little knowledge of the subject will suffice. Of course there are perspective lines required in the raising and shading of letters, but that is so slight that it may be, and is, done by sign writers who have not a particle of knowledge of perspective, consequently we have in our example, simplified the instructions so as to convey sufficient information for the practice of sign writing in a compact form, easy to be understood by the student. Independent of this, however, we would strongly advise the young student to acquire a thorough knowledge of the laws and practice of perspective, he would find it of the greatest use and help to him in making drawings of any kind.

When a line of letters are to be painted in perspective, similar to our example—*Journal of Decorative*—the first thing we do is to decide upon the size of the first letter. We then strike two horizontal lines of the full width of the first letter from side to side of the board, between these two lines we make a centre line. We then strike the two

lines from the centre line at the right hand side of the board, to the extreme point and the full width of the horizontal lines at the left hand side of the board—as shown in our example—between these two lines the letters must be formed, but before sketching them in, we strike two additional lines inside the two perspective lines at top and bottom. These lines at the broad end must be at the exact distance from the other lines that we wish the thickness of the edge of the letter to be, but must gradually decrease in width, to the extreme end on the right of the board. This will be understood if we look at our example, in which both the letters and their edges become gradually less as they near the end of the lines. This is the fundamental principle of all perspective lines, which may be very simply verified if we look along a street with rows of houses on each side of it. We shall see that the line of the footpath gradually rises or appears to do so the further it recedes from our point of view, and the line of the tops of the houses appears to get lower as it recedes, until the line of the footpath and the tops of the houses appear to meet at what is called the vanishing point. In practice, we cannot of course always have lines of houses to form our perspective from, and landscape painters and architects have to work from an imaginary vanishing point. This is also the case in sign writing, as it is not often that we can get a sufficient distance on a sign board to enable us to make the letters as large as we want them between perspective lines, and we have to get over the difficulty in the following manner:—We first strike the two horizontal lines as before described, then make the centre line; from this centre we make a mark at a certain distance on each side of it, of the exact width we require the smallest letter to be; from these marks we strike the two lines between which the letters are to be formed. If we finished at the end of the words "Journal of," in our example that would be exactly the state of matters we are explaining, and the word "Decorative," if desired might be written on the other half of the board, by reversing the lines, so that they will both equally converge to the centre of the board, in this case the word "decorative" would commence with the smallest letter and end with the largest, both sides would then be in perspective. From what we have said, it will be perceived that it is a simple matter, to form a line of letters in perspective. But there is one point which requires to be carefully studied, and that is the direction of the top and bottom lines of the edges of the letters, except these are correctly done the letters will look on the twist, and not stand firm. It will be observed that these are in the opposite direction to the lines of the letters. The tops and bottoms of the letters being drawn on the inclined lines; the lines of the edges should be drawn as nearly as possible horizontal; the rise from the horizontal line being very small but sufficiently marked to give the required position.

The three letters forming the word "Art," may be termed perspective letters, for although the perspective of all are alike, yet, each letter stands in separate lines of perspective. Of course letters standing singly may be placed at any angle of perspective, but the the three we here give will serve to explain the principle upon which they are all drawn. In forming these letters, we first draw the horizontal and perspective lines, as before described; having regard to the size we require the letters to be, we then mark the proportions of a letter within a square, formed of two vertical lines and the horizontal ones. But we sketch the letter itself between the two perspective lines running through the square. The first letter being so formed, with its edge also, we have only to form the other letters within the same lines to obtain the same perspective for each.

Our last line of letters shows an example of the thicknessing or blocking done on straight lines instead of in perspective. It will be observed that both top and bottom lines of the broad edges are confined between the horizontal lines at top and bottom of the letters. We give these letters here to show that it is not absolutely necessary that raised or blocked letters should be in perspective, in order to give them the effect of projection, as these letters, although they have not a line of perspective in their composition, look as if they stood with their edges towards us. We see no objection to their use in sign writing, as they read well and are certainly plain letters in form, but the blocking gives a somewhat ornamental appearance to them and affords ample scope for harmonious colouring and graduated shading.

The two other sheets are copies of two of the drawings sent in, in the competition for the Sutherland Prize; that by Mr. Glazier took the first Prize, under the motto "Dum Spiro." From "Athelstane," we hope to have good results in the future.

AMONGST THE WOODS AND MARBLES AT THE "JOURNAL OF DECORATIVE ART" EXHIBITION.

The following are a few passing notes we made during an inspection of the work sent in for competition for the Crowden and Garrod Prize and the Yorkshire Varnish Company's Prize. They are quite apart and distinct from the judicial report which we publish in another part of this issue. The visitor could not help being struck with the number of panels sent in that obviously had not the slightest chance. It would appear in some cases that no serious attempt had been made, one competitor accompanying his panels with the note that they were new unpainted wood on the Friday previously. We therefore offer these notes as suggestive of the direction the competitors must look if they wish to improve themselves:—

THE CROWDEN AND GARROD PRIZE.

L.—Very poor. No knowledge of woods.

DISPATCH.—Oak and mahogany the best; dirtily done, shows signs of hurriedness.

PALMAM QUI MERUIT FERAT.—The work of an apprentice. Maple, oak, and mahogany, best. Wants good hard practice from good specimens.

GEM.—Satinwood, maple, and mahogany, the best; other three poor.

P.R.—Poor. Want of knowledge of the woods. Mahogany the best.

H.B.—Not studied the woods sufficiently. The oak the best, but wants subduing.

J.M.B.—Pine, oak, and walnut. Pine, very good, best of the three.

W.P.—Walnut very good. Pollard oak next best. Others very indifferent. The mahogany a bad piece to copy.

I.O.V—Very clean, but not natural at all.

T.W.—Much behind this contributor's exhibits of last year.
XXX.—All "smudgy." Some good work about them, but gave one the appearance of being dirty; this was added to by the fillet, with some kind of flock on.
NOVA CASTRA.—The "fiddle-back" mahogany in this set good. All the others suffered from being cloudy and dirty-looking.
SCOTIA (Second Priz).—A very good set, though some distance behind "Art," the walnut, mahogany, pitch pine, and pollard oak being the best; the oak being *harsh*, and the maple weak in technique and poor in colour.
ARMORIAL BEARINGS.—Commended. Oak, very good; satin-wood, good; walnut, very fair; mahogany, *hard*; maple, very much above the average; pollard oak, poor.
ART (First Prize). — Mahogany plain in grain, but very natural in colour. A very beautiful piece of work. Pitch pine the next best of the series; walnut next; root of oak, oak, and maple, in the order named.
CASTLE AND ANCHOR.—"Painty." Maple and mahogany the best.
I·O·—"Painty." Maple the best.
W.B.M.—Promising, if good specimens to work from.
J.B.H.—Indifferent. Not natural at all.

THE YORKSHIRE PRIZE.

FOR THE BEST SET OF SIX MARBLES.

L.—Thunder and Lightning.
"XXX" shows ignorance of the marbles.
TUBAL.—Painty. The green the best.
H.B.—Promising, if the author will study nature more, and aim for more transparency. The sienna, serpentine, and dove were the best.
LAPIDUS—"Painty" in the extreme. The sienna and another marble had none of the characteristics of the marbles they were supposed to represent.
ZENO.—"Butcher's Shoppy."
MARMOR.—Fairly good. Evidences considerable knowledge of the marbles, though not an equal knowledge of the technique of painting them. The bardiglio, serpentine, and jasper the best.
NOVA CASTRA.—A very good set indeed. A little over-elaborated, the whites in most cases being somewhat "painty." The brown brocatella by far the best; the sienna and the green next in order of merit; the sienna being very good.
P.R.—"Painty."
CALEDONIA.—Splashy, and too much white about them.
HONESTY.—A very careful, well-studied lot, the sienna, serpentine, and rouge being of a very high class indeed, the black and gold coming next, followed by the verd antique, and the Italian pink ranking last.
TIME FLIES (Second Prize).—The "Vert" as fine as anything exhibited. The sienna excellent in form and colour, but slightly over done with scumbling; the rouge roi very good and stony; the jasper strong in colour; the verd antique somewhat splashy; and the Italian pink not equal to the sienna.

SCOTCH NOTES.

I HAVE to congratulate you on the success which has attended your representative's efforts in securing subscribers in Scotland. I hope he may succeed as well in the East as he has done in the West.

I am glad to hear that the few Scotch decorators who competed for the prizes, given through your journal, have been fairly successful.

Messrs. M'Culloch and Gow, of Glasgow (who are amongst the successful competitors), are making rapid strides in their profession and deserve success. Mr. M'Culloch had several years training under Cottier, and other decorators, and during the last 10 or 12 years he has been gradually building up a good decorative business; but it was not until he started glass-staining and tile-painting, along with Mr. Gow, that people began to see he was determined to come to the front. Mr. Gow was for many years in the employ of Cottier, where he gained a thorough knowledge of glass work, and also house decoration. There is a good deal of the firm's glass work all o'er the country, and it is much admired for its purity of design and skilful colouring.

The portfolio which Messrs. William Gentles and Co. has just published of M'Culloch and Gow's designs is selling well, the trade evidently recognises them as being of considerable merit and I understand that several of the designs are already being reproduced, by decorators, on work at present going on.

Another prize winner, viz., Mr. McArthur, Barrhead, has reason to be proud of securing a prize for woods, in a competition with grainers of great reputation. Messrs. Shanks and Co., Enamelled Bath Manufacturers, &c., Barrhead, deserve great credit for employing a grainer of Mr. McArthur's ability for their work, as it is a fact that, a few years ago, such a thing as a well grained bath was unheard of. Messrs. Shanks and Co. are, I understand, filled up with orders booked at the present exhibition, and I have no doubt that the graining of the sample baths shown would have something to do with the great success of the firm.

I observe a subscriber of yours in the West Highlands is being favourably noticed for the painting work of the United Presbyterian Church, Oban.

The following is an Extract from the *Oban Times*:—

"There is no congregation in Oban more lively and energetic than the United Presbyterian. It is not long since that, by means of the most successful bazaar ever held in Oban, or for that matter in the West Highlands, the debt on the church buildings was swept off. These same buildings for the last month or so have been under the domination of the painter and other tradesmen. We wish we could congratulate the congregation on the structural and architectural features of the fabric. This cannot be said; but we can honestly say that every endeavour has been made in the recent repairs to make the best of a bad bargain, and put the best face on the interior of a building which has no claim to be considered a pretty church. The interior is one large open space, with gothic-topped openings in the side wall filled in with glass. A few feet above the apex of the arch of the windows the roof springs up with little or no ornamentation. The roof timbers are exposed, and betwixt the rafters there are plastered panels. Mr. A. L. Gray, painter and decorator, has coloured these panels a pale blue, and the exposed timbers have been varnished. It is on the walls, however, that Mr. Gray has shown his powers. At the level of the roof line a stencil ornament, specially designed by Mr. Gray, has been carried round the church, affording a pleasant break in the colouring, which is of a rich buff. This band is about ten inches in depth, and besides being geometrically agreeable—the design not too involved—it is 'picked out' with some artistic taste in different colours. Another band, of a more subdued tone, however, endeavours to do what the architect should have attended to, viz., emphasise the structural part of the building, is carried round the wall on a level with the stone corbels supporting the roof-ribs, as well as over the windows. Another stencil band is placed right above the wall pew lining. The dead wall between these stencils has been marked off into stone courses with a plain ornament on each stone. The effect is exceedingly pretty. The gable ends of the church have also been treated tastefully. The pulpit end is made more inviting by means of a deep stencil ornament below the stained-glass window. The school-room and vestry have shared in the general improvement. Mr. Gray is to be congratulated on the taste he has displayed on a very difficult subject, and the congregation on their enterprise to make the house of worship as beautiful as possible. Mr. Gray has earned unqualified praise for the manner in which he has fulfilled his task. He has shown himself an adept in decorative skill, his workmanship is of first-class description, and we do not wonder to hear that he has already booked similar commissions for church painting."

PETER PALETTEKNIFE.

ART NOTES.

THE event of the season is without doubt the Exhibition of Whistler's Etchings at the Fine Art Society's Rooms, New Bond Street. The whole thing partakes too largely of the nature of a huge joke to be treated seriously. The object of the Exhibition is ostensibly to display a number of Mr. Whistler's etchings of scenes in Venice. In themselves, these are sufficiently remarkable to have evoked a chorus of hostile criticism, as indeed they have done; but when to the eccentricity of execution and rendering which the artist has

seen fit to adopt, be added the vagaries of the accessories, we do not wonder that the critics have been down upon him with no gentle hand. Imagine a white ceiling, cornice, and a three-feet deep frieze, on which is stencilled in yellow a solitary object, dubbed a butterfly. Below the frieze, the wall to the skirting is covered with pieces of coarse flannel, each about thirty inches square, and separated from the frieze by a broad moulding painted in two shades of bright yellow. The skirting is painted the same colour. A straw-coloured matting covers the floor, and the table and mantel-piece are draped in the same bilious shade; whilst, as if this were not sufficient, yellow flowers in yellow pots adorn the table and chimney-piece. The effect on the eye after staying in the room is very irritating. As to the etchings themselves, some reveal what the artist could do if he would; others show to what absurd limits a man may permit himself to be carried by his crotchets. We remember some time ago hearing a lady indulging in rhapsodies over Venice and its glories, suddenly pulled up by the friend she was addressing saying, "Venice! umph—Salford!" and the description more closely tallies with Mr. Whistler's pourtrayals than anything we have seen.

THE new building in Piccadilly devoted to water-colour painting, is one of the best contributions to the street architecture of the Metropolis we have had for some time. No greater contrast could be found to its refined lines than the ugly vesture given to the Holborn Restaurant—the one is a constant educational agency, the other is a demonstration of all that it should not be. Apropos of restaurants, the development that has taken place in them in London the last fifteen years is little short of marvellous. One of the latest of these modern palaces is the "Falstaff" in Eastcheap, where Messrs. Simpson & Sons have been "investing it with artistic merit," by a liberal use of their decorated enamelled iron, tiles, majolica, and stained glass. In making choice of the means of decoration aim has been chiefly directed to the selection of such materials as would be likely to afford the utmost durability and permanence. Painted tiles, enamelled and majolica faïence, polished woodwork, stained glass, and decorated enamelled iron seemed especially to commend themselves for the purpose, and have therefore been largely employed, the general treatment adopted for their ornamentation being in the style of the Italian renaissance. In the buffet, on the ground floor, the ceiling is panelled in decorated enamelled iron, the vitreous surface of which is at once impervious to smoke and dirt and can easily be cleaned. A deep rich frieze of painted tiles surrounds the upper part of the room, and the side walls are panelled alternately with mirrors and highly finished art tile pictures representing old English sports and pastimes—otter hunting, wrestling, morris dancing, climbing the greasy pole, &c., mounted in a framing of carved and gilt walnut wood. The floor is laid with a pavement of Roman ceramic mosaic. The ceilings of the large grill room below, as well as those of the staircase, are treated similarly with decorated enamelled iron, while the walls of the latter are lined with tiles, mouldings, and enrichments of glazed faïence. In the smoke-room the walls are again arranged with an alternation of mirrors and art tile figure paintings forming pilasters, while lunettes in the cove above are oil paintings on gold grounds symbolising the seasons and four elements. The whole of the decorated enamelled iron ceilings, mosaic pavements, art tiles, painted and faïence decorations, have been executed by Messrs. W. B. Simpson and Sons, Decorative Art Workmen, of 100, St. Martin's Lane, London.

ANSWERS TO CORRESPONDENTS.

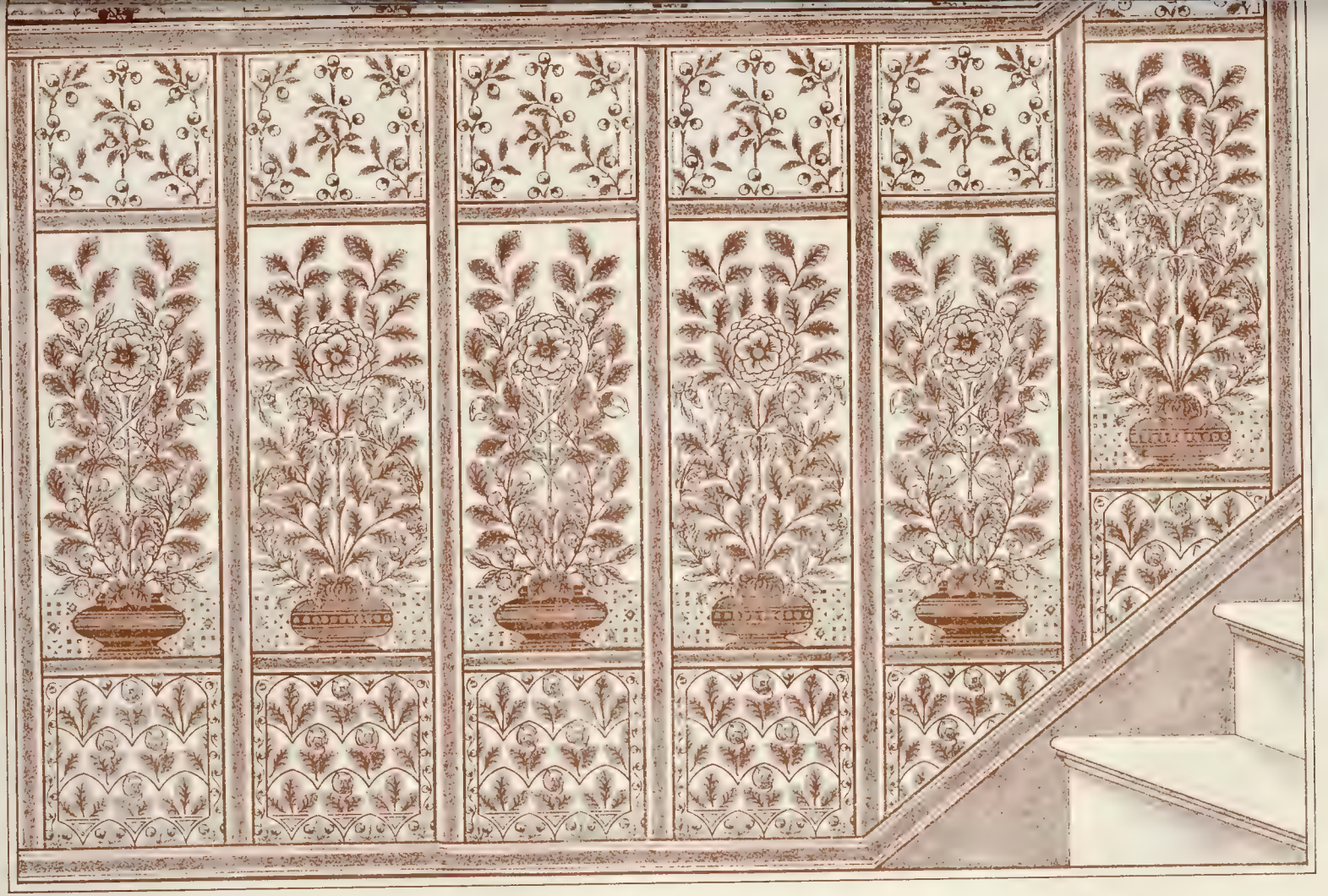
ENQUIRER, FALMOUTH.—You say that when you have finished gilding on the glass, and the burnish is to your entire satisfaction you find when you paint on the ornament or letters, with black japan, the gold has a frosted or mottled appearance on the front side, wherever the japan has touched,—that is what I gather from the tenor of your note.—You say gold size *or* Japan black. We do not recommend gold size in any part of our instructions for gilding on glass. Again, you say that you give the back of the gold a coat of *glue* size.—Now, when once the gold is put upon the glass, in a proper manner, and turns out well, having a bright clear burnish, there can be only two causes that will produce the effect you name; the first cause being a want of size on the back of the gold, to prevent the varnish (of whatever nature it may be) from penetrating and tarnishing it, or using a greasy size, such as glue, which is totally unfit for the purpose; the second cause is the using a medium to back the letters with that destroys the isinglass size, and thus penetrates the gold. Glass gilding is a simple matter if properly carried out. It is also a very simple matter to spoil it utterly by carelessness and want of attention to instructions.—With regard to your remarks on the system of granite painting by the method described in the *Journal*, you say we would hardly claim infallibility. Well, hardly that! there is only one old gentleman who does that, and he resides at Rome. But we do claim to know exactly what we are writing about, having personally practised the methods we described for more years than we care to state, and have found these methods to be the best we have been able to find, in the course of a very long experience and close study of the character of marbles and granite. If our instructions are *strictly* followed, we guarantee the success of the system. Other workmen may have formed systems of working, by which they may produce effects equally as good as by our system, but what we do say is, that we have produced first-class work by the methods published in the *Journal of Decorative Art*, and have faithfully described them, so that others may go and do likewise.

DAMP WALLS.—Our correspondent at Fort William writes to us that he has succeeded in extracting all the moisture from his walls, and he fully anticipates that the cure will be a permanent one. The means by which this desirable end has been produced are so simple and so readily obtained that we have very great pleasure in communicating it to our readers. Our correspondent has washed the walls with vitriol, and then before papering the walls gave them a coat of hot lime diluted with cow's urine. He says, "I am glad to say that the vitriol has had the desired effect in extracting the moisture and some acid out of the walls, and before papering I gave them a coating of hot lime diluted with cow's urine. My reason for adopting the latter course was that I had seen it used without the vitriol thirty years ago with success, and as the remedy lies within the reach of anyone it may be useful in other cases. But should this not prove effectual or unsatisfactory I will certainly let you know at once." We express no opinion on the matter, not having had any experience with this special remedy. We have, however, every reason to give implicit credit to our correspondent for his communication, and are always gratified to be able at any time to place before our subscribers any useful process, and shall receive with interest any further information from our correspondent on the subject.

T. S. SIDMOUTH.—The oil gold size supplied by the dealers is thick and requires to be thinned to a working consistency with boiled linseed oil, which is commonly called drying oil. Some persons thin it down with oak varnish, but this is not so good as the oil, nor does it hold its tack so long. It is, however, useful if the size is required to dry quicker than it does with the oil. In reply to your second question in reference to the oak overgraining rollers, you will get prices and description from Messrs. Crowden and Garrod, whose address you will find in our advertising columns. A full description of them is given in an earlier number of the journal. They are the only rollers of a really useful nature with which we are acquainted, and do their work well, and although they are mechanical, a skilled grainer will use them with very different effect to a learner.

JOSEPH MASON & CO.,
MANUFACTURERS OF
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JOURNAL OF DECORATIVE ART SECOND ANNUAL PRIZE COMPETITION, APRIL, 1883.

The "Bristol Prize" for Wallpaper for Staircase.

H. H. Kerby, Nottingham **2nd Prize, Value £5. given by Mr. T. C. Stock, Bristol.**

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: 15, ST. ANN STREET, MANCHESTER.

MONTHLY.] JUNE. [PRICE 7d.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First the earnest and intense seizing of natural facts: then in ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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CHAPTER XXVIII.—EMBOSSING ON GLASS.

GLASS-ETCHING, or embossing, are synonymous terms so far as the materials are concerned, but differ somewhat in the *modus operandi* of their use in practice. Etching on glass by means of acids is a very old process; but embossing on glass, as we now understand the word, is a comparatively modern process. The process of etching on glass is identical in its methods with the usual methods of etching upon copper and other metals, practised by many of the great painters of old, such as Rembrandt, Raphael, Claude Lorraine, Callot, Albert Durer; and in our day by Turner, Samuel Palmer, and numerous others, who have left behind them many valuable examples of this art. And in the present day a great revival of the process obtains amongst painters and engravers. In etching upon glass any shape or form of vessel can be ornamented with the most elaborate designs by means of lines and dots, just as in an engraving, even to producing gradations of shade, and depth and strength of line, the only difference being in the nature of the acid used. Hydro-fluoric acid is the only acid that we know of that will dissolve or disintegrate glass. A little nitric acid added to the fluoric acid will cause it to bite or dissolve the glass in a less fierce and more regular form than if the fluoric acid is used alone. It is a colourless liquid, having a pungent scent, and is very destructive to the skin whenever it touches it; and the fumes arising from it are most injurious to the tissues of the mouth, throat, and lungs, and mucous membrane of the stomach; therefore it is incumbent upon the workman to avoid inhaling the fumes of the acid when using it. This may be best done by using it only in an open shed or in a room having a good strong draught passing through it, or when there is much embossing the "aciding" should be done immediately under a square wooden chimney or air shaft, communicating with the outside atmosphere, up which the fumes would be drawn. With care, no injurious effects need result from use of the acid, but without due precaution permanent and dangerous effects are produced. Hydro-fluoric acid is a combination of crystallised fluor spar and sulphuric acid, and may be purchased from the manufacturing chemists or some drysalters. There are two methods of using it—one by means of the vapour produced by placing fluor spar in a shallow vessel and pouring the sulphuric acid upon it until the spar is covered. The action of the acid upon the spar produces hydro-fluoric acid in the form of vapour, this condenses and forms the liquid hydro-fluoric acid, which may be used either in its liquid or vaporous form. For some purposes the latter may possibly bite more evenly, but for all the purposes of etching and embossing glass the liquid form will answer every purpose.

Etching on glass is done by first coating the glass with a mixture (technically called the ground) which will effectually resist the action of the acid—this mixture, as will be evident, being a most important part of the process, for if it is not properly mixed it will break up under the action of the acid and will corrode the glass all over, and thus destroy the design and spoil the glass. These remarks will equally apply, of course, to the process of embossing. There are several mixtures and mediums used for stopping out—*i.e.*, stopping or preventing the action of the acid — which will answer the purpose. The essential qualities of a good ground or stopping-out mixture are—First, a complete and perfect resistance to the action of the acid. Second, a perfectly smooth or homogeneous mixture free from grit, dust, or other foreign substance. This latter quality is of the utmost importance to the success of the work, for if there be any specks of dirt or grit mixed with it the acid will attack and destroy them quickly, and will make holes in their place and thus spoil the work. Third, a good stopping out mixture should be firm but not brittle, and sufficiently soft to allow of being scraped or cut off with a chisel, etching point, or other metallic tool, for although in embossing proper we generally lay on the stopping out mixture with pencils, yet there are occasions when it will be found advantageous to supplement the pencil with the etching point, chisel, and straight edge, so that in both cases it is best to have the medium plastic, in order that we can add to or improve at pleasure. A good stopping out mixture is made with white wax (30 grains), gum mastic (15 grains), asphaltum or amber (15 grains). This is the mixture the celebrated painter, Rembrandt, used for etching on copper. Another mixture is given as that which Callot, the celebrated etcher, used, viz., white wax, 60 grains; amber or asphaltum, 60 grains; and gum mastic, from 30 to 60 grains, according to the heat of the weather. The hotter the weather the more gum was required. But a very simple and useful mixture for both etching and embossing is made with Brunswick

black and white wax, in the proportion of 1oz. of the wax to 4oz. of Brunswick black. Another very excellent mixture is made with bees' wax dissolved in turpentine, and strained through fine silk, it must be perfectly clean and free from grit. To this must be added about a sixth part of black Japan or Japan varnish, the quantity of the latter being varied according to the heat or cold of the weather—more Japan if it is hot, less if it is cold weather. Many embossers use Brunswick black alone for stopping out, but our experience does not give the certainty to its resistance to the acid as it does when wax is mixed with it. Canada balsam is also used. We may note that we have given these mixtures before in our article on "Etching upon China and Earthenware," in the first volume of this journal, and we are compelled to repeat them here, as no better can be given for glass work. The process of etching or engraving upon glass by means of acid, although not of the same importance to the sign writer as the embossing, is, as we have before said, often required in his work, and we shall therefore give the description of the latter first.

We will suppose that the stopping out mixture is properly prepared and ready for working. We shall require a design which may be made upon cartridge paper with the lead pencil or charcoal, exactly as it is to appear on the glass. This design may be either pricked or pounced on to the glass as a guide, or a sheet of tracing paper may be put upon it and the lines traced with a sable pencil and ink, or with quick colour having an opaque body. The advantage of thus tracing the design is that as the work has to be done backwards way, we can put the inked tracing underneath the glass with the back side of it against the glass, and thus have a clear guide, and every line in its right position, without the possibility of a mistake. It is this plan which is universally adopted by glass stainers and painters. The glass being placed flat on a bench or table with the tracing placed as above, we proceed to paint in the ground if we wish the design to be eaten away or corroded. Then we cover all the glass with the exception of the ornament or letters, putting in the detail or shading with fine lines; but sometimes the process is reversed and the ornament or letters left smooth, and the groundwork eaten away. In either case great care should be exercised in pencilling in the outlines sharp and clear, with a firm stroke, using the stopping-out colour freely, so that it will form a solid body of resisting surface to the action of the acid. Great care should also be taken to avoid dust lodging on the work while in progress, as every speck of dust or dirt mixed with the colour forms a weak spot for the acid to work upon. When the whole of the design is pencilled in the work should be allowed to stand for twenty-four hours before being subjected to the acid. Any irregularities or errors in the pencillings may be corrected by using the chisel or point, and scraping or cutting, and the work should be carefully examined for any uncovered places, it being a very difficult operation to cover every portion of the ground without leaving minute portions uncovered, so much so that the etcher on copper after he has coated the plate with the ground holds it over the flame of a lamp or candle to heat it, and cause it to flow evenly and thus fill up the minute pin holes left by the brush. Of course this is done to black it also, so that the etcher can see better what he is doing. We cannot do this with glass, as the heat would break it, so we have to exercise all the more care in painting the ground. The work being now ready for the acid, we place the glass on a level bench or table and adjust it so that it is perfectly level. This is a point of great importance, it being the peculiar property of this acid, that if it lies on the glass unevenly, that is, more in one place than another, it will bite unevenly, those parts having the greatest quantity of acid upon them, being eaten away *quicker* than the shallower parts, consequently causing an inequality in the depth of the embossing, which is avoided by a little trouble in the first instance. When the glass is properly adjusted, we shall require to put a border of walling wax round the edge of the glass to prevent the acid running off when poured upon it. This wall, as it is technically termed, must be about three-quarters of an inch in height and placed carefully so that there are no loop holes for the acid to escape. Bees' wax and Burgundy pitch melted together make a good wax for the purpose. Russian tallow is also much used, but is not so good as the first. Common tallow or any stiff greasy substance that will resist the acid may be used for the purpose. Fluoric acid varies much in strength, as sold by different makers, and does so when procured at different times from the same makers, and costs somewhere about 1s. 6d. per lb. retail from the ordinary chemists and druggists, but much cheaper when purchased in quantities from the wholesale dealers or manufacturers. It is very rarely if ever used in its full strength as sold, and will require to be diluted with water. We can give no rule of the strength to be used, not only because the acid itself varies in strength when it comes from the chemist's, but the glass also varies so much in hardness that one piece of glass will take twice or thrice the time to emboss that another plate will take. We cannot account for this difference in the glass, except it is caused by the annealing process; even in cutting glass with the diamond the difference in hardness will be readily and continually felt or experienced by the glass cutter. So that it is only by practical experience in the art of manipulating the acid that the workman can be sure of it being the right strength. It is always a good and safe plan to try the resisting power of the stopping out mixture and the proper strength of the acid upon a waste piece of glass before using it upon any important work, this involves but little trouble and effectually avoids any mishaps or bad work. Before pouring on the acid, the work should be examined to see that there is no dust or other foreign matter upon it, if so, they should be removed by dusting with a feather brush, or blown off with a fan or bellows; having made sure of the acid being of the right strength, we now pour it on to the glass to the depth of about quarter of an inch more or less, and let it stand until it has done its work. The time it will require to be left on the glass should be

known by the previous trial on the waste glass, but it is always necessary to examine it here and there to see if it is doing its work properly, or if the stopping ground stands firm or is breaking up; in the latter case the acid should be immediately poured off and the glass washed with clean water, and the bad places made good by coating them over with the stopping; a large wing feather is the best thing to use to brush away the acid in examining the work. Should the biting be going on all right we let it remain the proper time, and then make an opening in the walling wax at one corner of the glass in the form of a spout, through this the acid will run off into a bottle having a funnel in its mouth to receive it; by tilting the glass the whole of the acid may thus be saved for future operations. The acid must now be well washed off the glass with water, a small portion of the stopping should be then removed to see if the biting is deep enough, if not, then the acid must be put on again, but if it is as required then the walling wax must be taken off and put away for further use,* and the stopping washed off the glass with turpentine or any common spirit, and then well washed with common soda, hot water and soap, to remove all traces of the stopping. Caustic soda will clear off and effectually remove the stopping. In order to bring out the design, the plain part or body of the work should be ground or obscured by grinding with fine emery powder, or fine white sand is used. The method of performing this operation is very simple, but requires care and much patience. The glass to be ground must be laid upon a perfectly level bed, which may be formed by using a bed of sand on a level bench, the sand being covered with wrappering to prevent scratching. The glass is sometimes fixed into a bed of plaster of Paris which effectually secures it from moving and makes a capital bed for the purpose. A thick block of plate glass made by cementing two or three pieces together or a block of copper and sometimes a block of *lignum vitæ* is used. The emery powder is placed on the glass and melted, and the grinding block is moved over it with a circular rubbing motion until the glass is ground and appears white, the embossed parts being sunk beneath the surface cannot be touched by the block and appear clean and bright in contrast with the ground parts.

(To be continued.)

SCOTCH NOTES.

THE "term" trade with its whitewashing and paperhanging is now on all over the country, but still we are not happy. There is a push of little things, but they will not last long, and it is to be hoped that something larger may turn up soon.

When your last number was finding its way amongst your readers with Mr. Robinson's report as to marbles, &c., there died in Glasgow, Tom Nicol, one of the cleverest grainers that Scotland has produced. He was a native of Montrose, where he served his apprenticeship. He afterwards went into business there with a brother, and had they been successful he might never have been heard of beyond a few miles of that outlandish place, but business did not prosper and he went to London, where for many years he was looked upon as one of the best marblers and grainers, and in conjunction with Mr. Mc.Intosh (also a Scotchman) did important work as grainers to the trade. About fifteen years ago, he removed to Glasgow, where he was constantly employed for the best work by Messrs. J. B. Bennett and Sons, and other leading decorators. He has very few relatives left; but there were not wanting admiring friends to pay a last mark of respect to his memory. A friend was in Alloa recently, and saw the screens which Mr. Robertson had sent to the exhibition. I am assured that he had not done himself justice either in the dining room or staircase design, having departed from his usual simple and effective style. My friend saw a dining-room and staircase just being completed by Mr. Robertson, where, with little labour, a very pleasing effect was got. Mr. Robertson was several years in the employment of Messrs. Geo. Dobie and Son, and other Edinburgh firms, and it is, no doubt, owing to the good use he made of his time in the metropolis, that he has managed to secure such a hold on the best people in the district.

Galashiels is another small town where good decorative work is done by the local men, the result being that they keep the most of the work is their own hands.

I have seen work turned out by Mr. Watt and Mr. Lindsay that is equal to anything in the large towns.

Many of our country employers complain that the cream of the work goes to Edinburgh, Glasgow, Perth, and Dundee. For this they have themselves entirely to blame, as they are not keeping pace with the times, and it is their own slow going ways which cause the best of the country jobs to be handed over to the large towns.

To these benighted knights of the broad brush, I would say, "Awake out of your Rip Van Winkleish sleep; stop stirring up pots of stone colour for insides of stables and brown for the outside windows of the big house, and instead of that, stir yourselves up with mahlsticks and straight edges.

"Take in the *Journal of Decorative Art*. Buy Mc.Culloch and Gow's portfolio of Designs and Stencils.

"Use Lincrusta Walton, instead of paperhangings at 6d. per piece. Buy Crowden's and Garrod's Brushes. Use Charlton White and Duresco. Buy Cannon's Size (as glue is too strong for fine work); and last, but not least, send circulars to the nobility and gentry that you are prepared to furnish designs and do best work better than the best decorators in the big towns, and assure them that you have a soul above kitchen flats or even attics.

"Follow these simple directions and declare war to the knife, aye, even to the palette knife, against all city rivals; and if you persevere, success is certain, and you will bless the day you took the advice of

PETER PALETTEKNIFE.

* When again required it may be softened by putting in hot water.

*

OUR ILLUSTRATIONS.

THE Illustrations given with this month's Journal are the first and second prize designs sent in, in competition for the Bristol Prize, given by Mr. T. C. Stock. Notices of these will be found in our last month's issue. No. 1. is by Mr. Walter J. Pearce, of Forest Hill, London. Mr. Pearce is an industrious and enthusiastic decorator and has been successful in other competitions besides those connected with this journal. The design with his name attached would work out very well and make a pleasing decoration for a staircase and we hope Mr. Stock will see his way to carry it out. We learn, incidentally, that Mr. Pearce is a native of Bristol, and there is, therefore, a happy fitness about the fact of his gaining a "Bristol" prize. The design by Mr. H. H. Keeling, of Nottingham, is, as may be seen, distinctly different to the 1st prize design, and pos-

sesses considerable merit; its value artistically would have been improved if the masonry lines had been smaller and simpler and the ornament at their intersections less important; it suffers from plethora, and if Mr. Keeling will only do what is difficult for us all to practise—viz., put a strong restraint upon himself, he has the elements of a successful artist in him. Notwithstanding these criticisms, however, there is much in the design to be admired.

We feel it incumbent upon ourselves to offer a few words of explanation respecting the coloured sheet of letters given with our May issue. At the last moment we found ourselves confronted with the alternative of withholding the sheet or issuing it in its present form. As our arrangements for the next few months were already made, we had practically no choice but to keep faith with our announcements. We dislike apologies, and the occasion for them, but we cannot let the opportunity pass without exonerating ourselves from the responsibility of the errors of drawing and shading contained on the sheet in question, and to assure our readers that we have made arrangements that will preclude any such mishap in the future.

SHORT NOTES ON DECORATIVE ART IN ITALY.

By Richard Glazier.

ROMAN ORNAMENT.

In Roman Ornament we see the art of the Greeks enriched and carried out on a more magnificent scale. In Rome there are a large number of pure Roman ornamental designs carried out in a most lavish manner, yet with a treatment which is largely Greek, for many of the artists engaged by the Romans were Greeks.

The Forum and Column of Trajan was the work of a Greek artist, Apollodorus of Damascus, A.D. 114. The Triumphal Arch of Trajan was erected in the Forum, but was robbed of its carvings for the erection of the Arch of Constantine.

In Roman ornament we find few traces of painted decoration, the ornament known as Roman being mainly carved in relief from stone and marble. Animals, such as griffins and the triton, were freely introduced. A bold example of this occurs in a frieze from the Forum of Trajan, in which a figure is pouring liquid from a cup in front of a griffin, the ornament springing in bold curves from the lower portion of the figure.

Roman ornament is not suitable for decorative treatment, except for painting in light and shade in monochrome for a flat treatment, nor is it well adapted for modern requirements. Some of the ornaments may be used for a flat treatment, but these have an unmistakeable Greek character.

For the practical training of a decorator there is no finer study than painting in monochrome from Roman ornament, under a strong light. A study such as this, gives great facility of execution and knowledge of light and shade. The sketches we give were all made on the spot during our recent visit to the scenes of ancient art.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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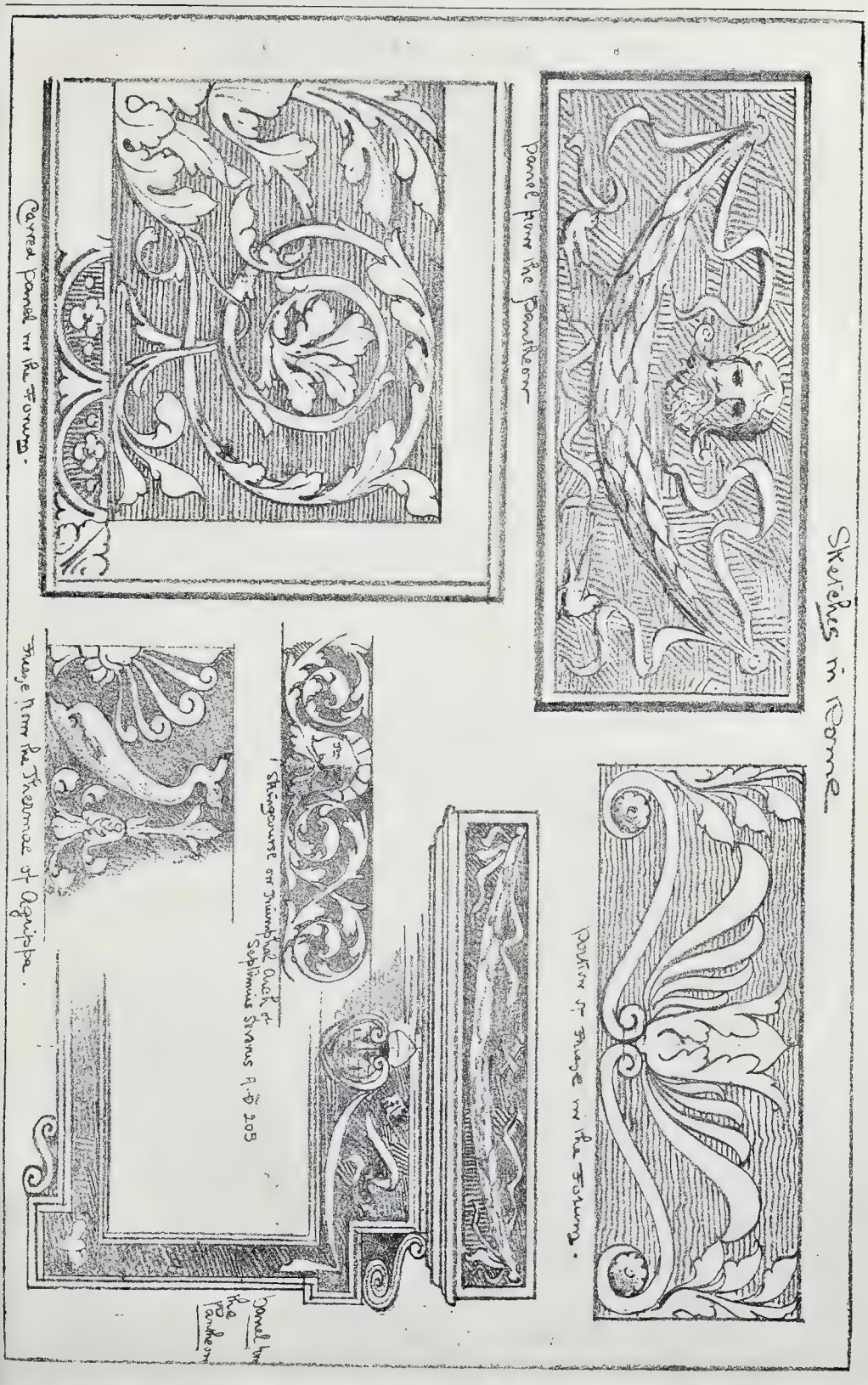
(Continued from page 319.)

Chapter XVIII.—Marbles and Marbling.

Irish Green or Serpentine Marble.

THIS marble, although called serpentine, is of an entirely different structure from the English serpentines we have just described, and derives its name from the fact of its veins and markings flowing in a wavy or serpentine form. Just as we have seen the green slime and other floating *débris* on stagnant water, or sluggish streams, blown by the wind into this wavy serpentine form, very near like the form the marking of this marble takes; and we think we may safely hazard the suggestion that it has been in some such manner that this marble has been formed, but instead of slime it has been solid matter in a semi-fluid state, which by the irresistible forces of nature has been made to flow in this form. Be this as it may, its markings are very graceful in form and its colour is rich and varied.

We may imitate this marble in two different ways. In the first method we work it off a dark invisible green ground, which must be flat or dead colour, and dry before being worked upon. We first rub a little boiled oil over the surface, but this must be wiped off again with a cloth or rag, leaving only a very bare film of oil upon the surface. We now use a large feather and a lighter shade of green than that of the ground, and go over the slab or column with this, laying the colour on with the feather in an irregular wavy or serpentine form. We next use a still lighter and brighter green mixed with white, and go over the work in the same form and manner as before. We then use thin white and and afterwards solid white in the same manner. The serpentine run of the markings being retained throughout the process, it may be irregular in parts with broken patches interspersed, but the general appearance must be serpentine or wavy in character. When this is perfectly dry, we then glaze it all over with a transparent or semi-transparent green. Terra verte, or Prussian blue and raw sienna will make good glazing colours. The glazing must be used pretty stiff and rubbed bare, and streaks of dark green of the same hue as the ground colour must be put in here and there to piece out broken parts and assist the formation of the natural run of the veins. When the glazing colour is dry, the work should be scumbled with very thin white in turps, using a feather for the purpose, and bits of solid white put in in places; this helps very materially to give it that stony appearance which all good imitations of marble should possess. Some-


Sketches in Rome
Carved panel in the Forum.
Panel from the Pantheon
Portion of Frieze in the Forum.
Frieze from the Thermae of Agrippa.
Shield-bearers on Triumphal Arch of Septimius Severus A.D. 203
Panel from the Pantheon

times there will be semi-transparent and partially solid white veins running across the slab in a contrary direction to the vein of the serpentine form.

Our second process, while as a matter of course taking the same forms in every respect in its markings and colour in the finish as that described above, is a diametrically opposite process, and is carried out in the following manner:—The ground colour must be white, flatted and stippled, and must be dry when worked upon. We now paint over the slab with a dark invisible green, mixed and made of the same colours as the ground colour used in the first process. This must be done with boiled oil and japanners' gold size added to it, making it of a stiffish working consistency. When rubbing in with this colour we put it on sparingly, but of sufficient body to partially obscure the white ground, putting in here and there a touch of black. We now take a large feather, dip it into turpentine, and draw it along lengthways of the slab, giving it a wavy serpentine form. This must be carried out all over the slab. The turpentine will open out, or cause the dark green to spread out, partially showing the white ground in light and dark veins in exactly the form the feather has left the turps. While it is in this state, and wet, we gently dab it with a clean rag. This prevents the colour from spreading out of the form we want, and also breaks up the continuity of the lines, just as we see it in the real marble. We now take a fitch and turps and still further open out the veins where required, wiping out portions with the rag where it will assist the form or effect. When this is dry we glaze it over in the same manner and with the same colours as described in the first process, scumbling with white in the finish.

By either of these methods a very faithful imitation of the marble may be made, and it will be found a very useful marble for many purposes.

In painting almost any of the green marbles, and indeed any other marble, great judgment and knowledge of colour is required. The effects to be obtained by glazing one colour upon another are to create an appearance of depth and transparency, to enrich the colours, and to subdue and harmonise the whole. Much of the underwork of the first painting is, of necessity, crude and poor in colour. The glazing colours soften all this down and enrich it, giving the whole a finish and completeness not otherwise obtainable.

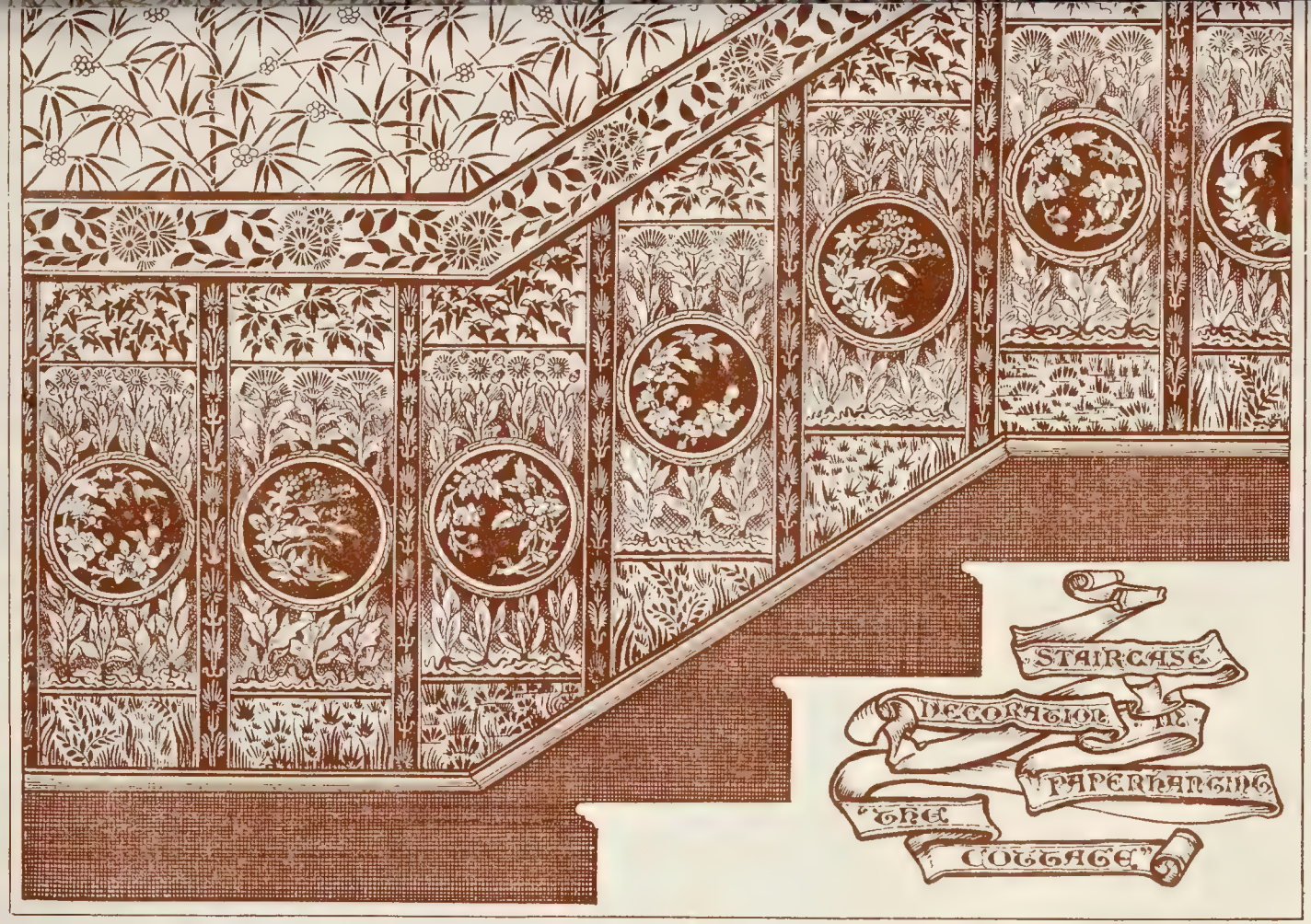
Breschia Ficario.

As we have not hitherto described our method of imitating two of the marbles belonging to the sets of patterns we have sent out, viz.: Breschia Ficario and Pyrenean Green, or Vert des Alpes, we proceed to describe them here. The Breschia Ficario is an Italian marble, the quarries being situated in the immediate neighbourhood of the city of Breschia, hence its name. It may be described in the mass as a semi-white marble, cut up or figured with black, purple, and green veins, having patches or masses of rich purple, pink, grey, green, and white in them, and soft bits of purple interspersed with the white here and there. In the pattern we have done we have put rather more work in them than we should do if we were doing a large pilaster or block of marble on a wall. We have done this purposely in order to give to the student all or nearly all of the varieties of colour and form found in the real marble. We have pointed out this fact, so that in working the artist may bear it in mind, and give more plain, or comparatively plain, parts, and thus avoid overcrowding.

In painting this marble we prepare a solid dead white ground to work upon. We mix a rubbing in colour with pure white, and linseed oil, adding a little sugar of lead to help to dry it, care being taken not to put in too much, or it will make the colour set too quick, and thus prevent its being blended and softened properly. We shall require a black crayon and a purple one for the veins. Some purple lake and brown madder mixed together, and made workable with a little of the ground or rubbing in colour added; some Brunswick green mixed in turps and a little of the white added.

All being ready we take a stiff brush, and rub over the work with the oil colour, rubbing it on as bare as it is possible to do. This is important; for if there is too much of the oil colour put on it will cause the veins too spread too much in softening. We now use the black crayon, and cut up the surface into long irregular broken patches, then some of these into smaller broken pieces, these running in between the larger patches. We now use the purple crayon—(it is made with ultramarine blue and Indian red)—and with it put in some faint veins, still further breaking up the large patches, but not interfering with the black veins. We now take a piece of crumpled paper and dip it into the mixture of purple lake and madder brown, and dab it on to one or two of the medium solid patches, not covering the patch all over, but partially so. Keeping within the line of the patch, we put a touch of this colour in and amongst the small cluster of veins and patches that fill up the interstices between the larger patches. We now take a feather and dip it into the green, and following the run of the veins we put this colour in and amongst them, running it on to part of the edges of the larger patches. This is all now softened with the hog hair softener, using the extreme ends of it alone, touching the work lightly, and not dragging it along; this softens and blends the veins and the colours, the one into the other. We also produce various tints and shades of colour by the intermingling of the green, brown, black, and purple, which have a beautiful effect in the finish. We now let the work stand until dry, when it is ready for glazing and scumbling. By working in the manner described on the white ground we produce a semi-transparent appearance, which gives it a stony or marble-like effect, that is very materially added to when we come to put in some pure solid white. In glazing we shall require some pure flake white, or Charlton white is perhaps better. Part of this will be used stiff or solid, and part thin, forming a semi-transparent glaze. We shall also require all the colours used in the previous working. We take a feather, dip it into the thin white, and go over most part of the work with this, using the badger hair softener to blend and soften





JOURNAL OF DECORATIVE ART SECOND ANNUAL PRIZE COMPETITION, APRIL, 1883.

The "Bristol Prize" for Wallpaper for Staircase.

Walter J. Pearce, London. **1st PRIZE, Value £10, given by Mr. T. C. Stock, Bristol.**

the white. This must not be put on so as to obscure the veins or colour, but simply to break up the lines in parts with a soft glaze. When this is done we take a crumpled piece of paper and dip it into a mixture of brown madder with a little blue-black added, and with this break up those patches upon which the strong colours have been put. If this is carefully done, it will break up the part into irregular pieces of coloured stone, and by using a pencil and the same colour we aid this effect by connecting and adding to the forms; and the effect is enhanced if we make the bottom part of the patch much darker than the upper parts. It will, of course, be understood that it is only in a few places that these dark patches should occur, the mass of the marble being light, with touches of colour here and there. Those of our readers who have got the marble patterns we have done, will thoroughly understand what we mean. We now take the feather and the thin green—or it may be done with a hog hair fitch—and run it in and amongst the veins, it must be transparent, so that the smallest vein can be seen throughout. We now paint in some parts of the large and small semi-white patches with the solid white, softening and blending them into the other parts of the same patches, so that the joining will not be perceived. Some of the smaller patches may be painted all over, and others crossed with the white, always softening and blending them to take off any harshness. Some of the larger patches, and in fact, the small ones also may be cut up with light or faint purple and grey veins, running the same way as the black ones, very thin turpentine colour is best for this work, made from madder brown and ultramarine blue, just strong enough to show. We may note here that it is always advisable in imitating almost any marble to use the colours, especially greys and whites, and delicate colours, stronger or brighter than they appear in the real marble, in order to allow for the discolouration effected by the varnish and the effects of time. Greys should be more blue, pinks more pink, etc., but yellows, being increased in tone by varnish and time, should if anything be lighter than in the real marble.

In imitating Breschia Ficario, we must give a caution which applies equally to many other marbles. In using the crayons, especially the black ones, the student should practice using them with different degrees of pressure; in some parts we should only just feel the crayon touching the work, while in other parts a certain degree of pressure should be used; by pursuing this course a great variety in the thickness and depth of tone of the lines may be produced, adding very much to the effect of the work when finished; whereas if the same pressure is used all over the work, a coarse and vulgar effect is the result, and the imitation rendered null and void. We cannot too strongly nor too often impress upon the young student the importance of noting what we say from time to time in reference to these little matters, which our own hard-earned experience has proved to be of the utmost importance to the success of the work.

We have still another point we wish to impress upon the student's mind, and that is, the fact that the success or failure of most imitations of marble depends more upon the proper management of the whites, or white and grey parts we see in most of them—Sienna, Rouge Roi, greens of all kinds, the Broccatellas, and numerous others.

It does not matter how well the other parts may be done. If the whites have not that transparent, spar-like appearance, the imitation will be a failure, but when they are done properly a very close and deceptive imitation is produced.

Next month we shall have a few words to say on this matter.

(To be continued.)

THE FOURTH ANNUAL BUILDING TRADES EXHIBITION, APRIL 1—14, 1883.

SECOND NOTICE.

THE **Pliable Wood Company's** exhibition was one of great interest to the decorator, and we cannot but think available for an extended use. The speciality consisted of extremely thin veneers fastened on to wood or card of all shapes, the veneer being so thin that it readily lends itself to almost any form. By means of this patent a very beautiful dado can be obtained, possessing all the apparent good qualities of best picked woods, at a cost very little in excess of ordinary pine wood. Amongst its other uses for the decorator may be mentioned that of panels for doors. Small panels of card, covered with the veneer, and fixed on an ordinary panelled door, leaving an equal margin all round, would form an admirable ground for decoration and would in many cases add to the structural features of the door.

Messrs. William Woollams & Co., of High Street, Manchester Square, London, had a very fine display of their paper-hangings. Messrs. Woollams have stood in the van of paper-hangings' manufacturers for the last forty years, and have held the position only by constantly adapting themselves to the varying requirements of each year. At the time of the '51 Exhibition there were no more remarkable displays in the way of wall coverings than those of Messrs. Woollams, and the high position they then assumed they have maintained ever since. The characteristics of their manufacture are good judgment and taste in design and colour, and surpassing excellence of workmanship. On these lines, and by laying themselves out to meet the demands of an ever-advancing taste, the firm has been able to continue to hold the proud position for so long a period. On the stand at the Agricultural Hall the most conspicuous, as well as the most remarkable piece of work, was a large design partaking of the character of Venetian tapestry. The size and character of this design would of necessity preclude it from ordinary use, but for very large halls it would be simply splendid. It is a magnificent specimen of workmanship and colour printing, there being no less than thirty-eight distinct printings, effecting in combination the enormous number of ninety-four tints. Surrounding this on each side were other specimens of imitation Venetian and Genoese tapestries. These were made in "Cheviot Flock," a speciality, so far as we know, confined to Messrs. Woollams. The flock is produced from goat's hair, and, owing to its great strength, can be easily cleaned when requiring it. The flock goods of this firm are worthy of the highest praise for the excellence of their design and the sharpness and clearness of the flock; whilst their ordinary stock paper-hangings possess the good qualities of all Messrs. Woollams' goods. This arises from the fact that they employ such eminent designers as A. F. Brophy, Owen W. Davies, and others of equal standing in the art world. Messrs. Woollams do not employ any travellers, but they are willing to supply good decorators with their terms on receipt of card.

A new exhibit was that of the **Embossed Tapestry Co.**, 117, Chancery Lane, W.C. This tapestry differs in its manufacture from most if not all the wall coverings before the public, in the fact that from the beginning to the end of the

manufacturing process oil paint is embodied in the successive layers of the material, with the result that the tapestry is thoroughly indurated with water turning and damp resisting qualities. It is sent out already painted and ready for hanging on the wall. The embossed portions are filled in solid at the back with an oil cement. We did not think some of the designs exhibited were particularly happy, but that is a point that will remedy itself. The company's temporary offices are as given above, and all information can be obtained from them on application.

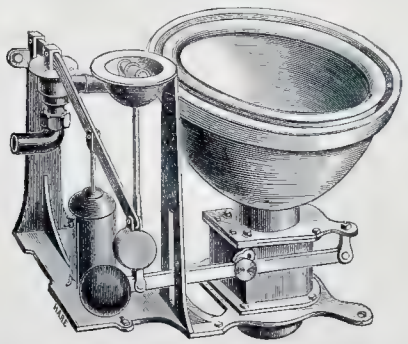
Amongst purely artistic exhibits the stand of **Miller, Little, and Co.**, Devonshire Street, W., occupied a front place. This firm are the sole agents for Mr. Lewis F. Day's tiles, a large selection of which they exhibited. They also had some very excellent specimens of their own production in tiles, stained glass, tapestry painting, and decorations of various descriptions. Messrs. Miller and Little claim for themselves that they were the first in this country to adopt the Barbotine painting to tiles. Whether that be so or no, the results they obtain are of a very satisfactory nature. The whole exhibit was representative of the rapid strides we have taken in decorative art work the last few years.

Messrs. Webb & Co., of Worcester, had a large display of their diachromatised wood blocks or tiles. The process seems capable of producing very ornamental and useful work, but some of the specimens shown were spoilt by the introduction of hideous colours, which militated against the value of the thing itself. Others, again, were very judiciously treated, and showed that in this new process decorative art has got a useful and welcome ally.

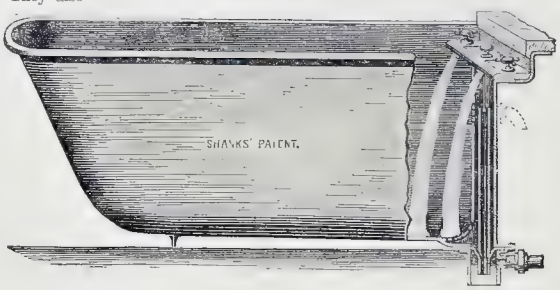
Messrs. Williams & Nash, marble masons, of High Street, Battersea, had on their stand a choice selection of marbles, indigenous to Cornwall and Devon, which well repaid us for a careful study of them, and revealed beauties of vein and colour, equal to marbles from any other source. Spar petitor, grey-clouded petitor, yellow-clouded petitor, and light spot petitor, grey Ogwell, dove Ipplepen, dove Happaway, and dark mottled Ashburton, were the principal marbles shown, and possessed great beauty, depth and translucency and richness of colour. We have no doubt the firm would be willing to supply specimens at reasonable rates if applied to.

In our comments on the exhibits of **Messrs. Griffiths, Berdoe, & Co.**, in our last issue, we failed to notice their specimens of Griffiths' Silicate Distemper. This was a pure oversight on our part, and we have much pleasure in drawing the attention of the trade to the useful medium they possess in the silicate distemper. It is a non-poisonous water-paint, manufactured in all colours. It can be supplied in a white form, and afterwards tinted to any shade by the decorator himself. The great feature, however, of the silicate distemper is the fact that after it is dry it can be washed, a point of very great importance. We heartily commend it to the notice of the trade.

Messrs. John Bolding & Sons, of South Molton Street, had a large display of sanitary fittings. We annex an illustration of their "Grosvenor" valve closet without overflow. It is well worth the careful consideration of all plumbers. In its arrangement it is quite new, and, as will be seen by reference to the drawing, it overcomes the difficulty of the overflow by the formation of a separate chamber outside the basin, the water flowing into which is conducted away to a warning pipe, which only comes into action should the supply pipe not shut off the water. The firm in addition showed the "Simplex," or self-trapping overflow valve closet, made by themselves. Also Banner's patent closet, a patent of very great merit, and one that has deservedly won for itself a large share of public favour.

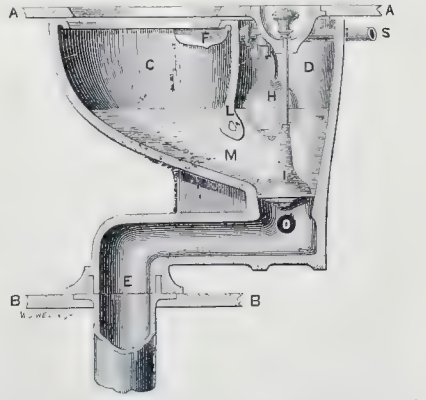


Messrs. J. and T. Shanks, of Barrhead, near Glasgow, exhibited some of their very useful sanitary appliances. The "Imperial" combined bath and fittings is an article that



claims the attention of all economists. The accompanying woodcut is part view and part section of a parallel-sided bath, made of cast iron, the standing waste or discharge pipe being cast on to the end of the bath, and communicating with the bath by means of a grating or grating-holes cast on the bottom, so as to completely empty the bath when the waste-valve, which is constructed to act as overflow, is lifted. The waste-pipe is carried up and communicates with the fittings, which are fixed on a shelf or recess cast in the end of the bath, about 3in. below the flange. The hot and cold taps, also the arrangement for lifting the waste-valve, are covered with a porcelain plate exactly fitting the shelf or recess, thus facilitating cleanliness of appearance, as the only brass-work to be kept clean is that of the knobs for working the valves. The porcelain plate is constructed with two depressions for soap trays, draining into the waste pipe. There is a trap at the bottom of the waste-pipe, so that all the plumber has to do is to attach his waste and supply pipes. These baths were fitted by the exhibitors in the Russian Imperial yacht, the *Livadia*.

The Pearson's Patent "Twin-Basin" Watercloset, exhibited by **Messrs. Capper, Son, & Co.**, of Fenchurch Street,



is an article that, for simplicity of action and construction, is worthy of careful attention. The mechanism is reduced to a minimum, whilst the action is direct and perfect. Some of the principal hospitals in London have been fitted up with this patent, about the best testimony one could adduce.

SHORT CHAPTERS ON THE SCIENCE AND ART OF HERALDRY (ILLUSTRATED).

COLLATED AND COMPILED FROM THE HIGHEST AUTHORITIES, ENGLISH AND FOREIGN.

Continued from page 304.

Fig. 160.—Or, three Fleurs de lis, azure. We have before described this bearing. It is one of the national emblems of the French nation, and is one of the oldest heraldic bearings.

Fig. 161.—Gules, a Lion's Gambe, argent. This word is nearly French. They call gambe what the Latins named crus, the leg.

Fig. 162.—Argent, three Gauntlets, azure. Gauntlets, from the French *gand*, a covering for the hand. These were steel or iron gloves, worn by the steel clad warriors in the days before gunpowder was invented. The gauntlet was used as a gage of battle. The throwing down of the gauntlet constituted a challenge, which an opponent lifted from the ground as a token of acceptance.

Fig. 163.—Azure, a Greyhound, sejant, argent.

Fig. 164.—Or, a Greyhound, courant, sable, collared, argent. The greyhound has always been held in high estimation for its speed, and was an important factor in the chase in olden times. In coursing it has always held an important position, and even in our own day holds its own as a national sport.

DIVISIONS OF THE SHIELD.



FIG. 152.—Or, an Elephant's Head, erased, proper.



FIG. 153.—Azure, an Escallop Shell, argent.



FIG. 154.—Argent, an Estoile of Six Points, sable.



FIG. 155.—Gules, a Falcon, belled, or.



FIG. 156.—Or, two Fes de Moline in chief, azure, a Fireball in base, sable, bursting, proper.



FIG. 157.—Sable, two Firebrands in saltire, proper.



FIG. 158.—Per fes, or and azure, a Fish, hauriant, argent.



FIG. 159.—Sable, a Fleece, or.



FIG. 160.—Or, three Fleurs de lis, azure.



FIG. 161.—Gules, a Lion's Gambe, argent.



FIG. 162.—Argent, three gauntlets, azure.



FIG. 163.—Azure, a Greyhound, sejant, argent.



FIG. 164.—Or, a Greyhound, courant, sable, collared, argent.

BOOKKEEPING.

FOR PAINTERS AND DECORATORS.

CHAPTER III.

THE books next in order which we propose to deal with are—

TIME BOOK.
JOURNAL OR ACCOUNT BOOK.

The Time Book has a very important bearing on any decorator's business as it is a record of the time spent on all work sent out of the shop, and if kept on a system similar to the one shown in our illustration is an exceedingly good guide, not only as to the number of hours the workmen are engaged on a particular job, but also in enabling the employer to ascertain whether a contract has been profitable or not. The old maxim "Time is Money," is especially and literally true in any business where labour forms so large a share as it does in the house painting trade, sometimes very expensive and costly labour too. An employer, not uncommonly, finds out to his loss that a job has been unprofitable, simply through paying away too much wages and keeping no record of the time spent upon it.

ANALYSIS OF TIME, MADE WEEK ENDING MAY 26TH, 1883.

Name of Customer or Address of Job.	Workman's Name: W. Smith	T. Jackson	J. James	E. Yates	J. Lee	W. Halliday	J. Gladw	T. White	T. Ad.	£	s.	d.
15, St. Ann-st..	21	30	32			1	5		56	7d.	2	11	11
W. Shaweross ..	20	[illegible]	[illegible]	[illegible]	[illegible]				40	7d.	1		10
John Williams..	2	5	[illegible]	[illegible]	[illegible]				08	7d.		0	4
Jos. Hughes....	15	4	[illegible]	[illegible]			3		7	7d.	1	1	7
	58	41	51	31	1.	1	7	3					

This can be made to any size, and will be found very useful. A time book to show the system.

We would therefore recommend our subscribers to adopt a book of a similar character and ruling, if they do not already possess one, as it enables them to see at a glance what time their men have spent on each job, the total number of hours each workman has earned, and the total number of hours all the men have spent on a job or contract. We presume nearly all masters keep some sort of record of the time their workmen make, but we are inclined to think that if they do, the system may be good and useful in itself, yet wanting in simplicity and readiness for reference. We have known of Time Books being kept in a similar manner to the example given underneath, but it will not require much eloquence from us to show that the former method is much the simplest and decidedly preferable.

WEEK ENDING APRIL 28TH, 1883.

WORKMEN'S NAMES.	Hours on Job.
John Smith—	
Mr. Dunn..	5
Mr. Ferrier	40
Mrs. Brown	15
	60
John Jackson—	
Mrs. Dunn	9
Mr. Brown	7
Christ Church..	29
	65

JOURNAL OR ACCOUNT BOOK.

These Books can generally be brought ready ruled, either as Monthly or Quarterly Account Books, and they are, of course, indispensable in a business where the mode of keeping books is a proper and correct one.

It is not necessary for us to point out that a strict record should be kept of all accounts sent out, and the amount of each placed in a column provided for the purpose. If the accounts as they are paid are written off from the Cash Book day by day, the book will show what accounts are outstanding and to whom application should be made for money. We find it useful where an account has been rendered more than once to put a tick or mark against it, according to the number of quarters or months that have elapsed since first being sent out. (See our illustration as to W. Nixon, which we will assume has been sent out twice before.) To carry on a business there are two important elements to be considered; the first is to sell your goods (time and material being the painter's stock), and the second, but not least, is to get paid for them. If the account book is adopted and kept written up in the way we have indicated, it will doubtless, in many cases, prove a preventative for bad debts.

Folio	Names	Amount of a/c.	When Paid	Amount	Discount and Deductions	Remarks
268	Wm. Nixon..	[illegible]	[illegible]	[illegible]	[illegible]	
2..	Thos. Johnson	[illegible]	Apl. 30	12 6	0 3 6	

(To be continued.)

TRADE INTELLIGENCE.

DR. ARTHUR MITCHELL lately delivered a lecture in Edinburgh in which he summarised the characteristics of Celtic ornament. There were, he said, three principal patterns in the surface decoration, viz., interlacements, angular frets, and a pattern formed of diverging spirals. The first two appear in other styles of decoration belonging to other countries. The third, which is the most beautiful, is purely Celtic, and has been used only by the Scots—Irish Celts. The three in combination, however, really form what is known as Celtic decorative art; and so combined they produce a style of decoration emphatically national. It was an art of the Christian period, and was used chiefly in the decoration of objects related to the Christian worship or faith, such as manuscripts, crosses, croziers, shrines, chalices, &c., but it was also used to decorate such things as personal ornaments, armour, horse-trappings, &c. The forms given to the objects decorated were decidedly good, and they were forms which were suitable for receiving such a decoration. The decoration was aided by the use of colour when possible, and in the case of metal work by enamelling and jewelling. The art probably came to Scotland from Ireland. The best work in the manuscripts and metals occurs in Ireland, but the best work in stone occurs in Scotland.

THE Silicate Paint Company has just issued a card showing the result of an experiment that has been tried at Glasgow. Travellers to Glasgow alighting at the Central Station cannot fail to have been struck with a large board fixed over one of the subways leading out from the station. The board is painted white, or we should say was painted white, and divided into two equal parts and written upon. The legend is as follows :—

SILICATE PAINT COMPANY.
Manufacturers of Non-Poisonous Paints which are not *DISCOLOURED by EXPOSURE to WEATHER.*

Genuine White Lead. Genuine Charlton White.

Painted January 29, 1881.

Proprietors — Works

A saving of 6/6 per cwt. is made by using CHARLTON WHITE instead of GENUINE WHITE LEAD. — J. BORR & Co. — Charlton, KENT.

The Painted Ground-Work of this Board will show that Charlton White Retains its Colour WHILE GENUINE WHITE LEAD DARKENS BY EXPOSURE.

London, 107, Cannon Street. Liverpool, 32, Sc.. Street. Glasgow, 173a, St. Vincent St.

The part painted with the white lead verifies the statement made by Messrs. Orr and Co., inasmuch as it has sensibly lost its colour, or rather we should be more correct in saying has gained in colour, whilst the half painted with Charlton White has retained its native purity, a very severe and trustworthy test.

Mr. T. C. Stock, of Bristol, has sent us on a sample set of paperhangings described as *special offers*. We can recommend these to all master painters who are open to make a bargain. They are marvels of cheapness, and we wonder how they can be sold at the price. As we understond the supply of these goods are limited, those who desire to take advantage of the offer should apply early.

We all know the value of good tools, and we take the opportunity of saying a good word for Mr. J. Hill's varnish brushes. There is no speciality or patent in the make of these brushes, but they commend themselves to us for their sterling excellence of workmanship, wearing down to the very stump. Any of our subscribers about to make their purchases could not do better than give them a trial.

Last month we received a communication from a Mr. Clayton, of Accrington, in which he made a very grave charge against Mr. Edwards, the successful competitor in the Crowden and Garrod Prize, the charge being that the panels with which Mr. Edwards had won the first prize in Section IV. were not done by him at all but by another person. Such a charge preferred in so deliberate a manner could not go unnoticed, and we therefore at once placed ourselves in communication with Mr. Edwards, who has completely, in our opinion, vindicated himself from the imputation cast upon his honour. The statement made by Mr. Clayton was that Mr. W. Jones, of Manchester, had helped in the working of these panels. On the face of it we disbelieved the charge, as our knowledge of Mr. Jones, extending over the past fifteen years, certainly forbade us entertaining the idea for a moment that he would be a party to so doubtful a transaction. In this we were justified, as Mr. Jones has sent a letter which we now hold in which he states that "he never had a hand in them nor ever saw them more than once." We think that under these circumstances the only course left open to Mr. Clayton is to make an ample apology to Mr. Edwards for the wrong he has sought to do him.

A Building Trades' Exhibition is being arranged for at the St. James's Hall, Manchester. The committee of management is a very representative one, and the promise of the Exhibition is of a very favourable description. For space and conditions of the Exhibition, application should be made to Mr. W. Ogden, at the Hall.

A Remarkable Case.—During the last few months we had the singular spectacle of an eminent Nonconformist minister suddenly, in the midst of his sermon, without any premonitory warnings, forgetting all he had to say and being compelled to leave the pulpit in the middle of the service. History furnishes us with many parallel cases. We are all familiar with the story of Robert Hall, the great Baptist preacher of the last century, who, in his first sermon (whilst inwardly congratulating himself upon his preparedness) suddenly found himself bereft of all recollection of what he had intended to say, and, to his mortification and shame, having to beat a confused retreat. We could go on, did our time and space permit, citing instances without number of all classes and conditions of men who at different times and under varying circumstances have, in the midst of their ordinary occupations, suddenly found themselves divested of all their recollections of the past and their intentions for the future, but the past month has furnished us with an instance of failing memory so remarkable that all others "pale their ineffectual fires" before its lurid glare. In all the other cases we have alluded to or have read of, the failing of the retentive power of memory has come at an inconvenient moment, and generally involved the subject of it in considerable difficulty and confusion, but this most modern case is remarkable for its complete reversion of this order of things; and what adds to the singularity of the circumstance is the opportuneness and convenience of the catastrophe. The circumstance arose in connection with the visit of a distinguished pressman to the Building Exhibition, and to the *Journal of Decorative Art* section of it, last month. Our friend, the *Plumber and Decorator*, sent a special Decorative Commissioner to "do" the Decorative section of it. Of course, he was to "do" the *Journal of Decorative Art* exhibit, but on no account was he to breathe the name of the journal itself. So our commissioner duly wends his way upstairs, and under the names of the different donors he describes (in his way) the various exhibits until he arrives at Section vii., the Sutherland Prize, and here comes in the wonderful portion of the narrative. We had better allow the commissioner to speak for himself:—"There was another prize of the value of ten guineas for drawing in black and white of various decorations, but I, unfortunately, mislaid my memoranda respecting it, and cannot, therefore, give the details. It was, however, given by a Manchester firm." This is a sorry spectacle to gaze on. The man feels compelled, by virtue of the merits of the exhibition, to notice it, but, lest by a chance or a peradventure he should mention the name of this journal, or even the name of the proprietors, he is compelled to resort to this shallow device to suppress it. We do not question the policy of such a course, nor are we unmindful of the compliment that is thus paid us in so carefully guarding their columns from the intrusion of our name, but for a paper that professes to be a "Powerful, Progressive, and Independent" journal to adopt such shifts is significant of a lack of confidence in its own strength. We have no hesitation in gratuitously advertising the *Plumber and Decorator* in this way, feeling satisfied that no diminution of *our* sale is to be apprehended from such a course; and we assure our contemporary that when it has the public spirit, and ever feels itself in a position, to inaugurate and carry out two exhibitions like the two held in connection with the *Journal of Decorative Art*, we shall be willing to give a good notice of it, and place the name of the *Plumber and Decorator* in the forefront of our remarks.

The Perils of the Studio.—A contemporary directs attention to certain dangers which attend the art of painting, or, rather, which may attend the practice of that beautiful art, if habits of carelessness and uncleanliness are formed, especially in the case of young females who take to painting either as a pastime or a profession. The censor cited warns his readers, first, against putting the brush in the mouth to make a fine point; and, second, against leaving the handles of the brushes dirty, so that when several are held together in the hand the paint may be absorbed and poison the system. He enjoins the entire avoidance of brush-pointing with the mouth, and the perfect cleaning of brushes before they are put away. There is another small matter which should be mentioned in this connection. It is a mistake to keep the left hand burdened and cramped by a heavy palette and a bundle of brushes with the rest-stick in oil painting. The hand gets cramped and painful. It is possible that in some cases a paralytic disability not unlike writer's cramp may be induced by this mismanagement. The practice might, though not perhaps easily or conveniently, be avoided.

Church Windows.—The Art Tile, China, and Glass Painting Company (Messrs. Kelley and Co.), who recently removed from Finsbury-pavement to 39, City-road, have just completed, at the latter place, two stained-glass memorial windows for a church at Balderton, Norfolk. The design is Early English, freely treated, the subjects being taken from the Book of Ruth. One of the windows, which represents Naomi and Ruth, has beneath it the words, "Entreat me not to leave thee"; and the other, representing Boaz and Ruth, "The Lord recompense thy work." The grouping and accessories are good, and the colouring is rich. The company have now in hand two memorial windows to be erected in a church at Banbury, under the direction of Mr. C. Bell, architect, of Dashwood House. The subjects are "Praise," from the "Song of Miriam," and "Dorcas." From the present state of the work, and from the designs, these windows promise to be equally successful with the former.

ANSWERS TO CORRESPONDENTS.

Hair Pencil, Montrose.—We had intended to have further ventilated the question of cast shadows, but on reading over what we said on the subject in our February number, and in our last number, we are of opinion

that we can occupy the space at our command with more useful matter, and therefore we close the subject for the present at all events.

A SUBSCRIBER wishes to know how to remove flock-paper from walls in the quickest and best manner. Flock papers are painted with a specially prepared oil gold size, upon which, by an ingenious process, the ground cloth, which is the flock, is dusted, and to which it sticks, the superflous flock being afterwards brushed off. As will be supposed, there must be a good body of gold size put upon the paper to make it hold the quantity of flock it does, and it is this body of size which gets very hard that makes these old flocks so difficult to get off. Obviously, the principal aim in removing these papers should be directed to quickly destroying this gold size and so let the water get to the parts underneath. There are several compositions which will effect this purpose. We have heard of its being burnt off with heat, just as we remove paint from wood, but have not tried this method. Boiling water, used very hot, will soften the gold size and paper as well, and will help towards the desired end much better than cold water. A mixture of common soda, used very strong, with a little quicklime added, is also a good mixture to use, but rather dirty in use. The quickest and best method we are acquainted with, is to use a solution of caustic soda, put on with a brush made with fibre, as it will destroy bristles. This is a very powerful dissolver of oil or paint, and care must be taken in using, as it will burn the skin and of course destroy paint wherever it touches. The paint dissolvers of Messrs. Rendle Bros. or Mr. Harmer will facilitate the removal of the flock paper, and will not leave any after-deleterious effects.

E. J. J., SUDBURY, SUFFOLK.—Our correspondent wishes to know of the best and quickest way of painting Venetian blind laths. We have a not very pleasant memory of our apprenticeship days in connection with this question. In those days, some forty-seven or forty-eight years ago, Venetian blinds were very rarely painted any other colour but green, the pigment used being mineral green, which was a very difficult one to grind, and required laborious and constant work to grind it anything like smooth. We remember spending days and days bending over the grindingstone pushing about a large muller until our arms and back ached, and the mind and body became utterly wearied with it. We ground the mineral green in turpentine, mixed for painting the laths with resin varnish, and gave them one coat of this, on two coats of ordinary oil colour green. Sometimes they were painted solely with the mineral green and varnish. Painting blinds cost money then. We do not know if this old style of doing them is at all practised in these days of progress, but should think not, except in some out of the way parts which the march of improvement has as yet failed to reach. Nowadays we procure all our pigments ready prepared, and many of the varnish and colour manufacturers supply enamel colours which dry quick and hard suitable for the painting of blind laths, which is, of course, much cheaper and better than we could prepare for ourselves. We think three coats of paint and varnishing is a very laborious and expensive way of doing them. We do not know for certain the exact method the blind makers use, but we have found the best plan of painting Venetian blind laths is to first give them one or two coats of patent knotting, if one coat, then two coats of enamel green on that, but if two coats of knotting, then one coat of green laid on full. This will be found a clean and cheap method; much time will be saved and a better job will result. Varnish enamel colour may be procured in all the shades of colour used for blinds, so that the same process will answer for the one as the other, the difference being that possibly some of the colours will require two coats to make the enamel cover. We have often known size to be used for first coating upon the laths, but that is a dangerous method and should not be used as it is almost certain to cause the colour to crack when exposed to the heat of the sun.

Some few years ago a machine was invented for painting Venetian blind laths. Some Glasgow firm, we believe, hold the patent. We have not seen the machine, nor have we heard much about it of late, but at the time the patent was taken out we read a description of it, by which it appeared that the machine could be worked by a boy and could paint the laths quicker and better than they could be done by hand. The lath was put in at one end and came out finished at the other. If our memory does not fail us this was effected by a cylindrical brush, a trough, a paint reservoir, and a delivery motion. How far it succeeded we of course cannot say, but we shall feel obliged if any of our readers can give us particulars of the machine.

Another machine for painting blind laths and all sorts of irregular surfaces was patented in August, 1882. It is an American invention and effects its object by a complicated system of flexible rollers, which distributes the paint over the surface and leaves it one uniform thickness. The specification of the patent costs sixpence with one penny extra for postage, and may be procured at the Sale of Patents Office, 38, Cursitor Street, Chancery Lane, London, E.C.

With regard to the second question, our correspondent wishes for information as to how the painting and graining of cheap furniture is done. Cheap furniture is got up in many ways to bring the cost within the means of people who have not much money to spare; but in all cases of the kind, glue size, as a substitute for oil paint, is the element of cheapness, in conjunction with rapid methods of manipulating the various processes. Referring again to our apprenticeship days, we had a friend whose father was a very extensive manufacturer of cheap furniture of a common description, consisting principally of round and square tables, pembrokes, washstands, kitchen dressers, &c. Our friend, with assistants, painted and grained these goods, many however, being sold unpainted. His method of painting and getting up the grounds was to mix up glue size with best washed whiting, being tolerably strong of the glue; this was stained to the required colour, if for mahogany, with Venetian red, if for oak, with yellow ochre. The furniture was coated with this mixture used hot; if one coat did not suffice, two were given, and finished with a coat of clear size; upon this, the graining was done in oil colours, rose pink and a little black being mixed with it for the mahogany or rosewood, and umber and ochre for the oak. When maple was grained, the articles had one coat of paint upon the top of the clear sized ground, which was got up with the size and whiting, left white without being stained. At first sight it may be thought that this sort of work would not last a month of the ordinary wear and tear of rough households—but we have seen tables done in this way, which have looked respectable under hard wear for years. Nests of drawers and chamber furniture not having rough usage, will last any amount of time. Patent knotting, on glue size, or the knotting first, and size afterwards, in conjunction with enamel colours, is much used in the large furniture shops, also the size and whiting process, and one coat of paint on the top of it.

Deal furniture finished in patent knotting, if carefully done, has a very good appearance, and may be either varnished or French polished afterwards, or left under the knotting, either way it has a good effect, but the furniture requires to be well made for this style of work.

APPRENTICE.—W. G. Sutherland, Art Decorator, 15, St. Ann Street, Manchester, has a vacancy for a thoroughly respectable youth of good character as an Apprentice to the decorative business. Premium required. Address, 15, St. Ann Street, Manchester.

JOSEPH MASON & CO.,
MANUFACTURERS OF
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JOURNAL OF DECORATIVE ART SECOND ANNUAL PRIZE COMPETITION,

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"Remember therefore always, you have two characters in which all greatness of Art consists:—First the earnest and intense seizing of natural facts: then in ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

TRADES OR "BUSINESS."

THE EARL OF CRAWFORD in delivering the prizes to the successful competitors in the Southport district, at the recent Oxford and Cambridge Local Examinations, took advantage of the occasion to deliver a few words of advice that may be regarded as timely, or ill-timed, according to the standpoint they are looked at from. His lordship said, when he regarded the over-crowded state of the labour market for clerks and writers he was somewhat dismayed, and questioned whether we were not over-educating the children of our artisan classes for their station and future position. The point is one that is raised repeatedly by various speakers at different times, and from different platforms.

It is not very long ago since the bearer of an illustrious title, the representative of an ancient house and lineage, deplored the fact that "farmers' daughters were taught to play the piano;" and the self-constituted tutor advised his bucolic auditors to send their daughters into the dairy and kitchen instead of the drawingroom. Such oratorical rubbish as this we have no sympathy with; but there is one phase of the question that presses for solution, and to our thinking, can be solved satisfactorily in one direction only. We hold that the children of our working classes are entitled, and have a full right, to all the advantages our educational system offers; and, further, that the more thoroughly they can be equipped for life's battles with the armory of a good education, the better for the child, the family, and the State.

But, when the child is endowed with a good education, the question arises "What shall we make of him?" and here it is that the defect of our present system comes in; but we think the fault is a social one, and lies outside the control of anything but public opinion, and only by educating that to a right appreciation and consideration of the question can we hope to effect a satisfactory solution of the problem. The first thing we would complain of is the false standard which obtains amongst all the grades of the middle and lower middle classes, of what is "respectable," and "the thing" to do with their sons. The desire to get on and advance, both materially and socially, is one that claims the sympathy of all right thinking men. It animates all classes of society, and is a laudable and commendable ambition; but when we come to discuss the methods whereby such ends are to be secured, the defects of modern education immediately manifest themselves. "John" is "put to business," which is a delusive euphemism for saying that "John" has gone into some office to learn to write neatly and accurately, and that when "John" has learnt his "business" at the end of four or five years, he will be about on the same level as he was when he started, as far as any educational influence, exerted on him by his occupation, may be concerned. He may, it is true, in the interval, have developed into a "masher," with all the many accomplishments which that brings with it, and that is about all that can be said on his behalf.

It is also equally true that if John is of a studious turn of mind he can employ his leisure hours in educating himself, but this is beside the mark and outside the bearing of our present argument. What we deplore is, the way in which parents look askance at trades and handicrafts, with a depreciatory view that is productive of false estimates of men and things. The good old English names of trade and tradesman are dropped and "business" substituted, and "work" and "working" are titles that have come to be regarded as applicable to one special class, a result as ridiculous as it is misleading. More than all this is to be regretted the talents that are lost to multitudes of men themselves and to the community at large. Compare an ordinary clerk or shopman with a clever artisan, and see which has the more robust intelligence, which the greater breadth of view and keener knowledge of men and things. Contrast, again, the routine of casting up interminable columns of figures, or measuring off countless yards of calico, or ribbons, with the ever-varying demands on the thoughtful intelligence of the carver in wood and stone, or the cabinet-maker, and the designer and decorator. We are all familiar with a class of complaint made common in recent years, that the status of our artisans has lowered considerably, and we may ask, why is this? Is not the cause of it near at hand, and is not the explanation to be found in the facts we have set forth? Let the parents of our rising lads educate them not alone in the knowledge of facts, historical, geographical, and scientific, but let them teach their sons what is of far higher importance, the true intrinsic value of things and not the false estimate put upon them by an undiscerning public whose opinion is oftentimes founded on no higher or surer foundation than the dictates of fashion. Let them realise that both the material and intellectual advancement of their sons can be found in the prosecution of the trades we have enumerated, and in other kindred occupations, and we should at once discover to our great pleasure that a higher and more capable staff of men were occupying the leading positions in the various art trades, and that the designs and art work of the country were advancing on account of the superior character of the men engaged in following and producing them.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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CHAPTER XXIX.—EMBOSSING ON GLASS.

AT the finish of the article on the above subject in our June number there is a clerical error, which makes us say "The emery powder is placed upon the glass and *melted*," which should have been "and *wetted*."

Very large quantities of flashed glass are used for embossing. This flashed glass is simply the ordinary white glass having a thin coating of ruby, green, or blue glass on one side of it. This glass is principally made of table or crown glass, the oldest form in which window glass is made, and is coated with the coloured glass in this wise: the glass blower first takes up on the end of his blowpipe, from out of the melting pot, a ball of white glass in a melted state. He then dips this lump of white glass into a pot containing the coloured glass in a like state; the two are then blown together, and are manipulated until they expand into a circular sheet of glass, having the blowpipe in the centre, and the coloured glass (commonly called pot metal) forms a thin veneer on the outside, and however large the glass can be extended, it will still have the coloured glass on the outside of it. The centre of the table where the blowpipe is attached is commonly called a bullseye. Sheet glass is also flashed or coated with the coloured glass; but sheet glass is blown in a different manner to the table or crown glass, but is not so clear or free from specks, and its transparency is also injured to some extent by the flattening process it has to undergo in the annealing. The metal is taken up on the end of the blowpipe, as before described, but in larger quantities. The workman stands upon a stage exactly similar to a sawpit, with planks running from the mouth of the kiln holding the molten glass, having a space between the planks from two to three feet wide, and seven to nine feet deep. The glassblower stands upon one of these planks, holding the blowpipe; he blows down it and swings it and the metal at the same time. By alternate blowing and swinging the metal begins to stretch out in an elongated cylinder. He also swings it round, and the centrifugal force thus exerted causes the glass to stretch, while the blowing forces it into a cylindrical form. Some of these cylinders are five feet long, with a diameter of twelve to fourteen inches, and in some cases of sixteen inches, and require men of great strength, with powerful lungs, to do the work. Glass shades are thus made, but of a better description of glass. While the glass is in a malleable state the cylinder thus blown is passed between two upright pieces of wood fixed at the required distance from each other; this flattens two sides of the cylinder, and thus gives them the peculiar oval form most glass shades have: many, of course, are made without being pressed. The bottoms of these shades, and the cylinders for sheet glass are cut level by means of a glazier's diamond fixed upon wheels; the cylinders are then cut down one side from top to bottom, and placed in an annealing kiln, and when they have acquired sufficient heat they are flattened by being rubbed with a thick clump of wood fastened to the end of a pole, and it is this flattening which causes the bloom that is seen on much of the common sheet glass, the heat of the glass burns the wood which leaves a film on the glass. Now this flashed or coloured glass may be embossed by eating away the coating of coloured glass until we reach the white glass underneath; the effect thus produced being either white letters or ornament on a coloured ground, or coloured letters, &c., on a white ground; in the latter case the ground is eaten away, leaving letters and ornaments untouched; in the former case the ground is protected, and the letters, &c., alone eaten away. Very beautiful, although strong effects are thus produced.

ETCHING ON GLASS.

Etching upon glass, while being essentially the same process as embossing glass, differs in its manipulation or method of working. For while the stopping out paint or ground is put on with the brush, the ground for etching is spread on the glass in sufficent quantity to flow and cover the whole of the surface, and the design is put upon the glass by removing or scraping off the stopping and leaving the glass exposed to the action of the acid, just as etching upon copper, zinc, or steel is done.

As a rule the grounds for etching are not laid on so thick as for embossing, simply because, in the first place, etching work is not required to be bitten so deep into the glass as embossed work; and secondly, because if the ground is too thick it renders it very difficult to make fine lines as clear and sharp, or to place them as close together as required. Any of the stopping grounds we have before recommended will answer the purpose, but should be made thin enough to allow of its flowing evenly on the glass. If the glass to be operated upon is of small size, a coating of white wax will serve for a ground, and may be put on to the glass by first putting the glass before a fire and leaving it there until it acquires sufficent heat to melt the wax, a cake of which is cut to a square edge and rubbed upon the glass while it is hot, which melts the wax, and thus it is coated all over. If it is not as evenly spread at it should be, the glass should be held before the fire, until the wax will flow evenly, held in a horizontal position and moved about. Upon this coating of wax a little soot may be brushed with a badger hair softener, the wax will hold sufficent of the soot to partially blacken it, and we are thus better able to see the lines we make in etching. The back of the paper or design to be etched should be rubbed with a little fine whiting, white chalk, or dry white lead, having only just enough white to make a distinct mark

upon the wax, this paper is then placed upon the ground and the design lightly traced with a fine point, which results in the design being left on the wax in fine white lines. We now use the etching points; these are tools of different thickness, somewhat like a common stocking needle for fine lines, others being broader and flattened at the end for scraping. With the fine needle the outline of the design is marked, the stopping ground being scraped away by the needle or scraper, leave the glass clean and exposed to the acid. The shading is then put in by cross hatching, that is lines crossing each other, and also by straight and curved lines placed close together. If broad lines are required these are made with square ended scrapers, something like ordinary modelling tools.

The acid may be applied to small, or correspondingly small, pieces of glass by putting them into a bath of acid without using walling wax, but in this case the whole of the glass or other article must be coated over with an acid resisting medium, and for this purpose Brunswick black is the best. The back and edges of the glass should be covered with this; it dries tolerably hard and will, of course, bear handling, differing in this respect from the stopping on the front of the glass. Gas globes, lamp glasses, glass shades, or indeed any shape of article may be etched by use of the bath for aciding. Another method of applying the acid is by vapour, produced by putting a quantity of fluor spar into a leaden cistern, and pour sulphuric acid upon the spar, a slight heat is then applied to the bottom of the cistern, and immediately a white pungent vapour will arise; the glass being previously placed over the box, so that it will come in immediate contact with the vapour which will condense on the object and eat away the exposed parts of it. This method takes a longer time for the acid to complete its work than when it is put upon the glass. The third method is that we have before described with the walling wax.

(To be continued.)

A WRITER in *Chambers's Journal* on lead-poisoning and its remedy, closes with the following remarks:—"But, it may be asked, why do not chemists discover some safe material to take the place of white-lead? This is no doubt an easy question to ask, and rational enough. The problem has been, however, one of the most difficult in the whole realm of chemistry. The late Dr. Stenhouse, a most eminent chemist, formerly Professor at Edinburgh, grappled with the problem, and introduced a light-coloured antimony paint which is far less dangerous than white-lead; but it was proved to be only applicable as a basis for coloured pigments, and would not take the place of white-lead as a pure white colour. Before Stenhouse, oxide of zinc had been proposed as a safe substitute for white-lead, and has long been manufactured for that purpose; but although beautifully white, it does not work so well, or "cover" so well as white lead, and appears to be more expensive. More recently, another kind of white zinc pigment known as "Griffiths' Patent White," has proved far more satisfactory in this respect, and appears likely to supersede white-lead altogether. For several years its manufacture was kept a profound secret; but Dr. Phipson, of London, made known its composition in a paper read at the International Congress of Hygiene, held at Paris, in August, 1878, and called attention to its merits. It is now largely manufactured in Liverpool by Messrs. Griffiths and Berdoe; and if it were as widely known as it deserves to be, we should in all probability hear no more of lead poisoning from this particular cause.

"This new white pigment, which possesses all the properties of white-lead without its dangers, is a compound of sulphur, oxygen, and zinc. We are informed that there has never been a case of illness among the workmen engaged in its manufacture. By mixing it with non-poisonous blues, reds, yellows, &c., a whole series of beautiful and harmless pigments have been produced, which rival in every respect the same pigments having a basis of white-lead.

"The remedy for lead-poisoning, as far as colours and pigments are concerned, has, therefore, been found, and is available to the public. This is no mean result, as the great majority of cases of this disease emanate entirely from the manufacture or use of white-lead pigments; and those which are traced to the action of water upon lead-pipes and cisterns form a very minute proportion. The chemist has done his duty to society by discovering a substance which is a perfect and harmless substitute for the dangerous white-lead, and it only remains now for the public to take advantage of this discovery."

LESSONS IN TILE AND CHINA PAINTING.

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INTRODUCTORY.

THE POPULAR use into which Painting on China and Tiles has developed in recent years, and their value in any scheme of decoration, supplemented, too, with their cleanliness and service, is our warrant and justification for introducing to our readers a series of articles of a technical character, whereby, with a little practice, and lots of perseverance they may, if possessed of any knowledge of drawing, add to their armory of decorative resources these very beautiful auxiliaries. It is an axiom in art that the highest beauty is not incompatible with use, some writers asserting, and with truth, that where beauty is purchased at the expense of service, or use, a lower quality of beauty is, of necessity, arrived at. Without travelling further into the debatable, we may take it as settled by the historical testimony extant amongst us, that some of the most beautiful arts we possess have had their origin in use first. Take, for instance, the beautiful art we are about to descant on. It was the absolute necessity of giving to porous clay a harder and less absorbent surface that first turned the thoughts of men to glazes and enamels. Once this was discovered, it only required the ingenuity of man to develop and extend its application to all sorts of purposes and uses. In the discovery (in Europe, during the fifteenth century), of the uses to which metallic oxides could be put, what was regarded as a new discovery was, in reality, only the revival of old-world processes which, in the course and changes of the nations, had been forgotten and lost sight of. Authorities on the subject are at one in the belief that the art of applying vitreous glazes emanated from the East. The remains of old-world work exhumed in the course of recent years give colour and substantiality to this assertion.

When we consider how the art developed from the crude forms and shapes of rude peoples, to the exquisite refinement of line seen in Greek and Etruscan work, we cannot be surprised at the vitality and renewed vigour which it has displayed in our own time. Of modern firms who have done so much to popularise the art, and to foster a love of it, the names of Minton and Doulton immediately suggest themselves to us, and the English people have reason to be proud of such firms as these, who have done so much to redeem us from the reproach of being destitute of any love for art. Without further trespassing upon our space with introductory matter we would, before passing to the technical description, urge upon our readers the desirability of their endeavouring to graft on to their other accomplishments that of being able to paint in a permanent form. Year by year will see an extension of this phase of decorative art, and he is the wisest man, and the one most likely to attain to ultimate success who takes Time by the forelock, and advances with the progress of the day.

Chapter I.

Tile and china painting, when successfully managed, is a most fascinating and satisfactory amusement or occupation, but there are few things in which the beginner is more likely to go astray and meet with disappointment and expense for want of proper guidance inwhat is really a simple art. China painting is now so fashionable an employment and attempted by so many that the opportunity has been seized by those interested to exact as much money as possible by making all materials, firing and teaching, exorbitantly dear, and the beginner who goes the wrong way to work will find on making a few purchases and enquiries that very little may be had for much money. For instance, a shilling will be charged for rectified spirits in a little bottle when a pennyworth of turpentine would answer equally well; and, again, the mystery in which some results obtained in firing is surrounded is not at all decreased by the grave explanation of the shop people who had a piece of work fired, that the colors must have "carbonized."

It will, perhaps, be best to commence with some explanation of the nature of the materials to be employed, after which we will pass on to the artistic manipulation of the colors.

China differs from tiles and earthenware pottery in this, that china is a vitrified, glassy, and semi-transparent body, whilst earthenware, tiles, and pottery are an opaque absorbent clay, covered superficially with a vitreous glaze, although some superior tiles, all of china, are now being introduced. Most of the tiles now made are of clay dust compressed in moulds with enormous pressure, and afterwards fired. These tiles are less warped than those made of moist clay. Whilst dealing with the composition of tiles we might mention the method of cutting them, as it is often desirable to do so in making up tile panels of irregular size. This is usually done by indenting the tile in a straight line with a small cold chisel and afterwards tapping it smartly along the back under the line so made, when, if it is properly cut into with the chisel, it should break pretty readily. But an easier way is by crushing the glaze in the line desired with one of the American glass cutters, which can be had for a few pence, and then tapping as described.

There are two methods of painting on tiles, enamel or overglaze, and biscuit or underglaze.

We may briefly describe enamel colors as being composed of soft fusible glass, colored with the oxides of various metals; thus, oxide of copper gives a brilliant green; cobalt, blue; iron, red, orange, &c., gold, purple, and rose colors.

These glasses are ground to an impalpable powder, and so form enamel colors which, when laid on china by means of a little necessary medium (which evaporates in the firing) will, when the china is again fired to a red heat, fuse and adhere to the surface exactly as the brush laid them. By bearing in mind the simple action which takes place, the fusion of the color, and the evaporation of all mediums, the beginner will get a clearer idea of the whole process.

Biscuit or underglaze colors are different in this respect—they are imperishable colors devoid of almost all vitreous or glassy qualities. They are laid on the unglazed absorbent biscuit body of the pottery by means of various mediums, and receive a first firing for the purpose of evaporating the medium; this leaves the surface of the tile (or pottery) dead and absorbent. The tile is then skilfully dipped in the glaze, which is a hard powdered glass mixed with water to the consistency of cream. A thin coating of this glaze is absorbed and adheres evenly over the surface of the tile and color. When this is again fired the glaze fuses over the whole surface on which it lays, giving the colors under it great depth and brilliancy.

It is, however, a drawback that underglaze work must be sent to the Potteries to be fired, as there are no kilns suitable for this sort of work elsewhere. The delay and expense is great, and the result often disappointing. We will therefore content ourselves with giving this slight description of biscuit work, that the beginner may have some idea of the difference between it and the enamel work.

Before entering into the subject of the materials necessary for enamel painting, it is perhaps advisable to give some consideration to the means of getting the work fired. In most large towns there are now places where work is regularly fired for the public, and it is in kilns used for stained glass that such work is usually put. In many cases the firing is undertaken at the shop where the colors are sold, but this only means that the work is forwarded to some firm or third party who contracts to fire work sent, and an extra charge is made whilst little is gained except delay. Our recomendation is to send to, or seek out the kiln people themselves as one then learns exactly when to leave, and when to fetch, the work. Those who have had to call repeatedly for a piece of work anxiously expected will thank us for this suggestion.

Those who have a fancy and the leisure to fire their work themselves, or who reside in places where there are no regular kilns, may, under these

circumstances undertake to do so. It is not so much a question of expense as of time and trouble, but whilst giving directions as to the simplest method, in order that every facility may be placed in the hands of our readers, we do not advise any hasty undertaking in this direction.

Stained glass and enamel kilns are usually of iron and consist of a large iron box cast in one piece and open at one end, the work is placed on trays which slide in one above the other and are supported by ledges projecting from the kiln sides. This iron box is enclosed in a brickwork construction, in such a way that the fire may play round all sides but the open end which protrudes through a corresponding opening in the brickwork. This open end of the kiln is of course closed in by a solid iron door during the firing and cooling, all crevices by which cold air might enter being further filled up with moistened plaster of paris. A loosely plugged opening is necessary to allow the evaporating fumes to escape and also for the purpose of examining the state of the kiln from time to time as the firing proceeds. The fire hole opens out under this end of the kiln.

(To be continued.)

OUR ILLUSTRATIONS.

WITH this number we give a double-page illustration, printed in colours, of the first prize design sent in in the recent competition instituted by this journal at the Agricultural Hall, London. The design was sent in competition for the prize offered by Messrs. Wilkinson, Heywood, and Clark, the celebrated Varnish Manufacturers. The amount offered was £30, divided into two amounts of £20 and £10 respectively, as first and second prize.

The successful competitor was Mr. Richard Glazier, whose name is already familiar to our readers as a successful competitor, and as a contributor of designs and notes to our pages. The design, as will be seen, is a free treatment on well known lines of Italian work. Mr. Glazier is very facile with his brush, and the door under notice gave evidence of being done by an artist thoroughly conversant with the use of his tools. The design was sent in under the motto "Spero," and the comments of the adjudicator will bear repetition here:—

"Spero's" work seems so like that of "Crede Signo," in Class A, section I., that there is but little doubt that it is by the same hand. There is the same care in selection of well-known types of renaissance ornament from well-known sources, the same want of invention, the same handling in execution, and the same over-heightening of the lights; but with all these it is by far the best of the works submitted. If, with his facility of execution and his knowledge of ornament, "Spero" will go to nature and conventionalize natural forms for himself, he need not hope in vain. We may add that the dado flanking the door on either side is simply put there for the purpose of filling the space, and does not form part of the competitive design.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 355.)

CHAPTER XIX.—MARBLES AND MARBLING. BRESCHIA FICARIO.

IN describing this marble last month, several little matters were overlooked, and as these small things are all conducive to a successful result, we have no hesitation in going back to remedy the error, being anxious that the student shall have all the aid we can give him in his labours.

A green crayon will be found useful to put in green veins at the same time as the other crayon work is done. This crayon may be made with blue black and middle chroma yellow, in the manner described in a former number, and will be dull or bright as the black or yellow preponderates; and as many of the veins of this marble are of a dull green hue, this crayon will be found very useful.

ON THE MANIPULATION OF THE WHITES IN MARBLING.

As we have before said, the success or failure in painting imitation marbles lies in the proper management of the whites and greys, which form a component part in one shape or other of all marbles. In some marbles these whites and greys, while coming to the surface as a natural consequence of their being cut and polished, yet appear and really are under the coloured parts—that is to say, that the coloured parts seem to float upon the transparent whites and greys. This is notably the case in Rouge Roi, Sienna, all the greens, and Brocatillas, Rose Antique, and numerous others; while in the Breschi marbles, Breschia Ficario, White vein, Dove, Bardiglio, &c., the white parts while having a sort of semi-transparency are solid flat whites. In the former the stony effects are got by the transparency of the whites and greys; in the latter the effect is produced by pure solid white in contrast to semi-transparent parts, assisted by touches of bluish greys, and such other colours as are contained in the real marbles. The generality of marblers try to get these effects by scumbling the white upon the other colours, but this is a poor and weak method which does not attain the object sought.

In the first series of marbles in which the coloured portions seem to float upon the whites, the effect is best gained by opening the parts with turps, and touching up afterwards with pure whites in the following manner:—We will take Sienna marble as an instance; and those of our readers who have got the marble patterns we have done, and those who intend to have them, should place the Sienna pattern before them when reading our description. When the veins have been put in with the various coloured crayons, as described in a former number, and the yellows and pinks are put

in and softened or blended, we take a piece of crumpled paper and dip it into a mixture of ultramarine blue, very thin with turps, and dab this on to the panel here and there, having a dry rag or piece of calico in the left hand to dab or press against the part upon which the turps has been placed. This dabbing of the rag and crumpled paper seems, no doubt, a queer method of effecting the object, but from our experience we have no hesitation in saying that it is the best and most effective way in which those accidental shapes and forms we see in the real marble can be got. The turpentine is wiped off with the rag in a very unequal manner, leaving the blue, or light blueish-grey tints, mixed with the white of the ground, in almost the exact form we see it in the real marble, of which we have a slab 3ft. 6in. long before us as we write, and from which the Sienna patterns have been painted. The flow of the turps, in many instances, leaves a very fine outline of colour round the spots of grey and white that still further adds to the effect. When the whole of the spots and irregular shaped whites are all put in with the turps and blue, we dip a fitch or camel-hair swan-quill into clean turps, and touch some portions of the whites with it, having a piece of clean rag in our hand, and with this we press upon the part where we have put the clean turps; this brings off, in those places, all the remaining colour, and leaves the pure, or nearly the pure, white of the ground. If this is done judiciously the effect will be all that is desired. When the work is dry and ready for finishing, we touch up these whites, where required, with pure flake white, but in doing this we use it thin, and put a little upon any part of the whites and greys previously put in; but this must only be put on the greys in small quantities, using the badger-hair softener to each while it is quite wet, and thus blending it with the grey and white of the ground; this adds to the transparency and beauty of the marble. All the darker shades of yellow may now be put in on the small and large patches about and on the principal veins, and also very small spots of the yellow should be put upon some of the whites and greys. This helps very much to give that depth and transparency to the whites so necessary to the success of the imitation. In the real marble there is also a fine outline round some of the greys and whites, which may now be put in, using a fine pencil and madder brown with a little blue-black added, and used thin with turps. In and about some of them, a colour made of yellow ochre with a little madder brown added may be used with good effect, instead of the brown and black. After this is all done we then scumble or put on the panel here and there a thin wash of white, using the feather to do it with. This must not be done indiscriminately, but with judgment; for instance, it may be put across a patch of yellow to break it up more, or across one or two of the broad patches of grey and white, and also on to the dark veins when they would be the better of being broken up a little, but it must be borne in mind that the white thus used must be very thin and transparent. This will be perfectly understood by those who have our patterns. We pursue exactly the same system in doing the Rouge Roi and other marbles of that class, giving each marble its own character both in its form and nature of its markings, for although the same system is pursued it does not follow that the forms should be alike. And yet this is a mistake that many marblers fall into, and the best test of the skill of the artist is the marked difference in the character and form of each marble. If he preserves these characteristics in all he does, we may be sure that he has well studied the subject and knows thoroughly what he is doing. Now, the other class of marbles we have spoken of above require a different treatment, the stony effects being got by an almost opposite system of working. As will be noticed on inspection, the Italian Pink and Breschia Ficario have none of that underwork in the whites and greys we see in the Sienna, Rouge, and others. And here we may note what puzzles many persons who have not seen much or only small bits of each marble. They would say, "Oh, that is not like Rouge Roi; it is darker in colour or not so bright, or it is too bright. The whites and greys are not large enough, &c." Well, these persons are right, and at the same time decidedly wrong. In nearly all marbles without exception, there is a very great variety both in form and colour in the self-same marble. One block got from the quarry will differ in a marked degree from another, taken from the same place and even in immediate contact with it; not only so but every block, when it comes to be sawn into slabs of varying thickness, will show very great differences both in form and colour, although keeping at the same time the general characteristics of that special marble, just as it is in woods. Again! The Sienna or Rouge got from one quarry will be far richer in colour, brighter or darker as the case may be, than that got from another quarry. So we see that there is a very wide range for the artist to select that which will best suit his purpose, keeping always to the character of the marble, so that it may not be mistaken for any other. To return to our "whites." In painting Breschia Ficario or Italian Pink we do not depend upon the opening with turps, but get the effect of marble by first marking out the form with the different coloured crayons as described, and carefully softening and blending them together, keeping, as will be seen by the patterns, the run, and form, of the marble, for while the Italian Pink is sharp and angular in its broken patches, the Sienna is semi-round or irregularly round in the form of its veins, this being a point of the utmost importance to the student, for it will be evident that if the Italian Pink patches were done in the same form as the Sienna or *vice versa*—it would be ruinous to the imitations. When the work is dry, we darken small patches here and there, as may be required; put in a thin glaze of grey here and there, then add portions of a medium thickness of pure white on to portions of some of the patches of the Breschia. We do this with a swan quill, having a small hog hair fitch in the hand, with which we blend one part of the white into the patch upon which it is put, and then soften the solid or semi-white with the badger hair softener.

(To be continued.)



SHORT NOTES ON DECORATIVE ART IN ITALY.

By Richard Glazier.

Decorative Painting in the 19th century is apt to be overlooked regarding the position it holds in Art work.

It is popularly considered to be an inferior kind of art, requiring but little skill and knowledge on the part of the artist himself, so that the decorator of to-day receives a large amount of gratuitous advice and suggestions from professional men as to the proper sphere of ornament and colour, and how they should be applied.

The decorative artist is thus placed under deep obligation for the solicitude, interest, and elementary information tendered to him, and ought to be grateful to those professional men who so kindly read and quote elementary works, perhaps to the neglect of their own professional duties. The decorator is not supposed to have an opinion of his own. Every one has a knowledge of decoration, because they have read about it, or have a friend who knows something regarding it, and are therefore well qualified to give an opinion. The house decorator requires both elementary knowledge and advanced knowledge, but it must be sound and practical, and founded upon just laws and wide experience, and not upon the mere opinions of unpractical men.

In the revival of decorative painting in Italy of the 16th century, Michael Angelo and Raffaelle were its great advocates and exponents. Decorative painting was designed and carried out on a scheme of richness and splendour, such as had not been witnessed since the overthrow of the Roman empire

In the Vatican of Rome are seen the paintings and designs of these great artists. In the Loggie of Raffaelle are the series of arabesques, designed by himself and painted by his pupils, Giovanni de Udine, Guilio Romano, Polidoro da Carravaggio, Francesco Permi, and other artists, all masterpieces of manipulative dexterity and artistic rendering, and full of a fancy that knew of no restraint to its flights. The illustration we give is one of many possessing much that is interesting and instructive to the decorative artist.

We have been compelled by stress of other matter to hold over till next month our article on Book-keeping for Painters and Decorators and the "Scotch Notes" of our esteemed correspondent, "Peter Palettcknife."

OUR MANUFACTURING INDUSTRIES.—NO. IX.

PAPER STAINING.

A VISIT TO MESSRS. HEYWOOD, HIGGINBOTTOM, AND SMITH'S WORKS, HYDE ROAD, MANCHESTER.

THE manufacture of paper hangings in this country has, during the last fifty years, developed to such an extraordinary extent and has, in that time, taken so prominent and useful a position in the social and domestic economy of the nation, that no apology is needed from us in devoting a share of our columns to the description of the processes employed in their manufacture. And, when we consider further that the main body of our subscribers are directly interested in this section of the country's art industries, there is a peculiar fitness in making our readers familiar with the means and methods employed to produce for them one of the most important and profitable contributors to their business. In casting a retrospective glance over the business of paper-staining, there are two things that immediately strike the most casual observer; the first, the remarkable expansion which has been witnessed between the years 1850 and 1883, and the second, the great improvement in design and colour that has marked the production of English-made goods. Thirty years ago, whatever was really artistic in paper hangings, with a few exceptions, came from France, and "French paperhangings" consequently had the monopoly of the market for all the best goods. Nor was this to be wondered at, indeed, when we come to look at the impediments and obstacles which the wisdom of our legislators placed upon home-made goods, the wonder is not that we were second to France, but that we held any position at all in the race. In these days of enlightened fiscal polity we can only look back upon the density of vision, which the legislators of that day exhibit, with wonder and amazement. Thanks to the courtesy of Mr. F. Higginbottom, the present manager of the works we are about to describe, we are enabled to give a few facts of the position occupied by the paper-staining trade at the time of which we are speaking in 1861.



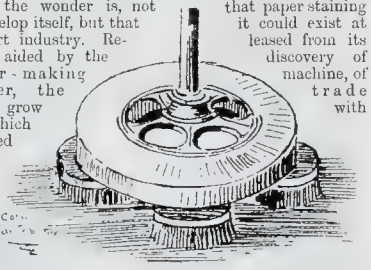
Mr. Smith, of the firm of Heywood, Higginbottom, and Smith, Hyde Road, contributed two articles to the *Manchester Examiner* on the subject in (reply to some adverse strictures that had appeared in the *Art Journal*) and from which we extract the following interesting and instructive information. In the pre-Free Trade era, our forefathers, or those who legislated for them, were evidently under the the impression that legislative restrictions and unjust duties were advisable in the interests of the manufacturer, consumer, and the nation, as on no other hypothesis can we explain the tenacity with which they clung to their duties and imposts. Happily the folly and fallacy of such legislation has exploded once and for aye, as far as we are concerned.

Some idea of the difficulties with which the early manufacturers had to contend, may be gathered from the following facts:—In the year 1712, when good Queen Anne held the sceptre of these islands, a duty of 3d. per lb. was imposed on all plain paper manufactured. Mr. Smith well says, "this of itself, would have been considered by any but an English government, a sufficient burden upon one trade. This, however, was light in comparison to the high tax which was placed upon the paper stainer, a further tax, equal to a shilling a piece being imposed, as if to test the indomitable vigor of Englishmen who could walk under such a load.

"In spite of these heavy government restrictions, the trade progressed, as the following statistics show.—In the year 1770 the amount of duty paid by English paper stainers independent of the excise duty on plain paper was £13,242 8s. 11d.; in 1780, £11,955 4s. 3d.; in 1790, £19,204 18s. 8d.; in 1800, £24,811 8s. 7d.; in 1810, £32,228 18s. 2d.; in 1820, £34,246 6s. 4d.; in 1830, £44,835 4s. 9d.; in 1833, £53,986 6s. 5d., more than four times the amount paid in 1770."

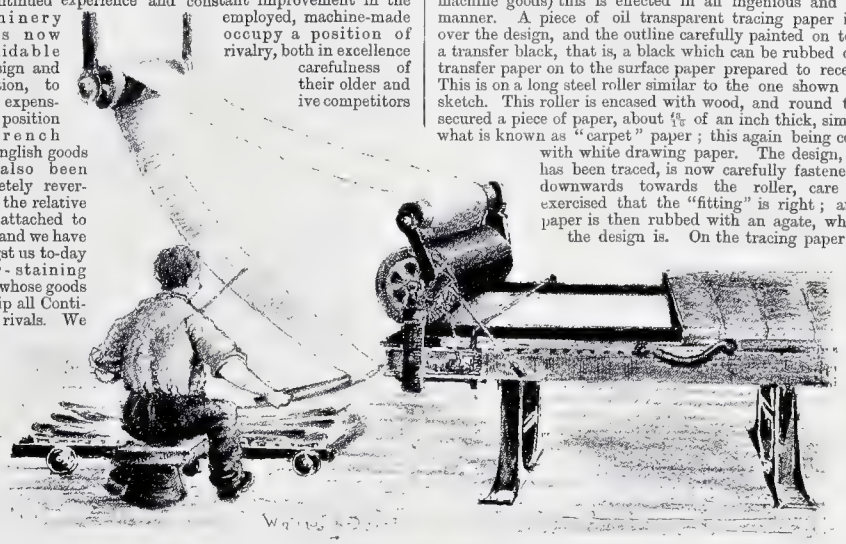
It will be seen by a glance at the above figures that the growth though slow was steady. These figures do not at all represent the actual amount of paper-hangings made, as such high duties had the inevitable and usual result of causing numbers of small makers to defraud the revenue by issuing false returns, and evading the duties; this was brought out in a remarkable manner in the evidence collected by a commission appointed, in 1836, to enquire into the question of the duties; the commission not only demonstrated this evasion of duties, but it revealed such a state of vexatious and irritating intereference with the operations of the manufacturer that we wonder how those engaged in it could endure them. One gentleman in his evidence says:—"I live in Dublin; I was born in Dublin and have been more than thirty years a citizen of Dublin. When I am walking through it I am surprised at where the quantity of stained paper is manufactured. I say, reasoning rationally, what proportion of this paper do I sell? I am satisfied I do not sell a twentieth or a thirtieth, and I suppose I pay one sixth or one eighth of all the excise paid in Ireland. I think it a very great misfortune for any nation to be obligated to tax its manufacturers. I should employ half as many people more but for the restraint I feel myself under in carrying on manufactures subject to excise. My drawing-room is licensed, my bed-chambers are licensed, my kitchen is licensed, my coal vaults are licensed, lest my people should fraudulently, or by error, put any goods into them. Our stock is the property of the excise, the officer knows as much of it as I do. Should there be the least defalcation or waste, if I am even plundered, he makes me pay for it. If the paper should be injured or discoloured the 'officer has no liberty to make any allowance'"—a state of things truly astonishing to us.

The conditions accompanying these legislative restraints were equally onerous, and operated against any great development of trade. Two of these illustrations will suffice our purpose. In the first place, no paper was allowed to be made in lengths, but had to be manufactured in small sheets which, before printing, were pasted together. Requests by the principal manufacturers to be allowed to make the paper in twelve-yard pieces were met by repeated refusals. Another condition, equally silly and expensive was that, the paper mill was not to be nearer than a certain given number of miles to the Paper Staining Works. Again, quoting from Mr. Smith, he says: "Trammelled with such heavy duties, and restricted on every side, the wonder is, not that paper staining did not develop itself, but that it could exist at all as an art industry. Released from its bonds, and aided by the discovery of the paper-making machine, of Fourdrinier, the trade began to grow with a rapidity which those engaged in it could not have anticipated. In returns presented to the House of Commons in 1834, the total number of pieces given as manufactured in the United Kingdom, did not exceed 1,050,000; but in the year 1860 the number of pieces made reached the total of 19,000,000—an increase truly astounding. Freed from the restraints of the Excise, English mechanical skill was brought to the aid of production, and about the year 1837, Messrs. Potter, of Darwen, and Messrs. Evans and Foster, Tamworth, almost simultaneously commenced printing by machinery.



The first efforts of the kind were not very successful, neither of these firms having had the benefit of being educated as practical paper stainers. They had everything to learn, and their productions were decried—not without cause—by the London and other paper stainers, who naturally looked upon the introduction of machinery into their trade as an innovation. Failure of success was, therefore, prophesied as the inevitable result, and machine-made paper hangings were in bad repute throughout the country."

In the initial stages of any movement there are always a number of difficulties to be overcome, and, paper staining by machinery, formed no exception to this general rule; but by continued experience and constant improvement in the machinery employed, machine-made goods now occupy a position of formidable rivalry, both in excellence of design and carefulness of execution, to their older and more expensive competitors The position of French and English goods has also been completely reversed in the relative value attached to them, and we have amongst us to-day paper-staining firms whose goods outstrip all Continental rivals. We need only advert to the gold medal of the Paris Exhibition, in 1878, being carried off by an English firm to prove the truth of our contention. French goods, during the last 20 years, have shown very little advance either in point of design or colour. They are, as they ever were, essentially "Frenchy," whereas home-made goods, have manifested a readiness for adaptation to the various styles of architecture which, for the time being have claimed the attention of the public, that it has been one continuous development and advance; and the gratifying feature of it all is that this has been brought about by no foreign-imported talent, but by artists native to the soil—Owen Jones, James Huntingdon, Sir Chas. Eastlake, E. W. Godwin, Dr. Dresser, Owen W. Davis, W. Burgess, B. J. Talbert, Lewis F. Day, and an innumerable company of other artists who have given individuality and character to English designs which has made them famous to the ends of the earth. Having said thus much by way of introduction, we will now give a slight description of a visit paid to the Hyde Road Works, and what we saw there.



The firm of Heywood, Higginbottom, Smith & Co., Limited, was established about the year 1844, and by the energy and enterprise with which the business has been conducted they have made themselves a reputation and connection that extends to all four quarters of the globe. The works are of a most extensive character, covering a large area of ground, and are situated in Hyde Road, about two miles distant from the Manchester Exchange. It was near to this place that Allen, Larkin, and Gould "made history" in 1866, by shooting Sergeant Brett in attempting the rescue of some of their confederates.

The first department to which we naturally turned our steps was the designers' room. Messrs. Heywood, Higginbottom, and Smith, in addition to designs bought in the open market, keep a staff of designers themselves, and some of their most successful designs are produced on the premises. In producing a design for paper hangings several points have to be regarded to insure success. First, it must be made to repeat itself in both width and length, the width being a fixed quantity, and conforming to the standard number of 21 inches; the length of course is regulated by the design, but from 12 to 36 inches is the more general run of patterns. Inside these lines hardly any limit is put upon the designer beyond having regard to the cost of production. The designs are all drawn complete and a section coloured in to show the result. These original drawings find many modifications in the working out which the actual experience of their manufacture alone can give. When the design is coloured the next thing is to get it cut (we are now speaking of machine goods) this is effected in an ingenious and clever manner. A piece of oil transparent tracing paper is laid over the design, and the outline carefully painted on to it in a transfer black, that is, a black which can be rubbed off the transfer paper on to the surface paper prepared to receive it. This is on a long steel roller similar to the one shown in our sketch. This roller is encased with wood, and round that is secured a piece of paper, about $\frac{1}{16}$ of an inch thick, similar to what is known as "carpet" paper; this again being covered with white drawing paper. The design, which has been traced, is now carefully fastened face downwards towards the roller, care being exercised that the "fitting" is right; and the paper is then rubbed with an agate, wherever the design is. On the tracing paper being removed the design is left sharp and clear, transferred to the white paper surrounding the roller; this is the "key" roller, from it are marked out in the same way the other sectional rollers according to the necessities of the design. The rollers with the designs transferred on to them are now taken to the cutting room.

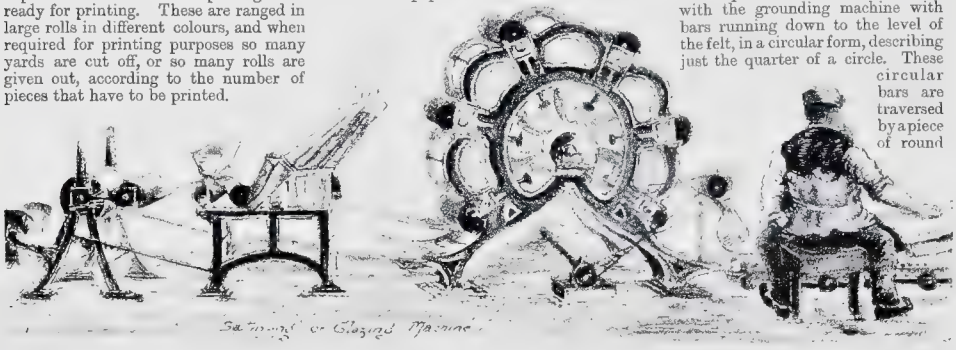
Roller cutting, as block cutting, is one of the most important of the processes employed, requiring a nicety and exactness of adjustment which calls for the utmost care and experience in working. It is also one of the costliest of the processes involved, and the "roller room" of such firms as Heywood, Higginbottom & Co., Potters, and Lightbown's, is a department representing an immense value. The roller having the designs marked on it is now placed on two wooden blocks on the bench in front of the "cutter." This workman now takes up one of the many pieces of copper, lying to hand on the bench. Selecting the piece nearest the size he immediately requires, and holding it with a pair of pincers in his left hand over the line it is to fill, he knocks it through the outer covering of "felt" paper right into the sycamore roller. The copper is sharp on one edge as will be seen by the section we show ▬ and can thus be driven into any yielding surface with ease. When the whole of the outlines have been driven in, the front edge of the copper is smoothed down to one even surface; at present the whole of the "felt" paper is remaining on the roller, this is now all cut away leaving thin pieces of copper standing up from the outer edge of the wooden roller. On those rollers where only the outline is to be printed from, or fibres, or any portions of a similar character the copper is sufficient for the purpose, but where a breadth of colour has to be printed, technically known as "blotches," it is effected as follows: Take a leaf as an example that has to be grounded in solid. The form of the leaf is first fixed with the copper, as before described, and after the paper is cut away the space occupied by the paper is closely filled in with felt, tightly packed. When this comes to

be used for printing, the felt, like the copper, takes the colour from the trough and transfers it on to the surface of the paper being printed. This will explain the process right through. Sometimes it is the ground that is printed solid, at others the design only. In some papers made at Hyde Road as many as twenty colours are printed at once; a triumph of mechanical skill of no mean order, and as each colour requires a separate roller, it will be seen that the cutting of the rollers is a task of great magnitude involving great sums of money.

Before we leave the subject of roller-cutting we will refer to another set of rollers, cut in exactly the opposite way to those we have just been describing. These are the rollers used for the oaks and washable papers, a department of very great extent and importance in the business of Messrs. Heywood Higginbottom and Smith. These rollers are made of copper, and cut in the ordinary way employed by engravers for calico printers. Yet another form of cutting necessary for the paper stainer, who embraces hand-made goods in his manufactures. This is "block cutting" for "block" printing. In many cases—indeed, in all cases,—where masses of colour have to be printed, the pattern is cut in hard wood—that is, the ground is cut away and the pattern left projecting. In order to stop the tendency which such blocks naturally have to warp, they are made of three pieces of wood laid crosswise on each other, thus neutralising one another, and keeping the whole straight. All outlines and fibres are inserted on to the blocks in the same way as described for the machine rollers. These three methods exhaust the different ways employed, and by means of them, all the paper hangings are made, various as they are. Of course, in addition, there are other means adopted to give variety to the surfaces or textures of the papers, but only by one or other of the above methods can the printing be done.

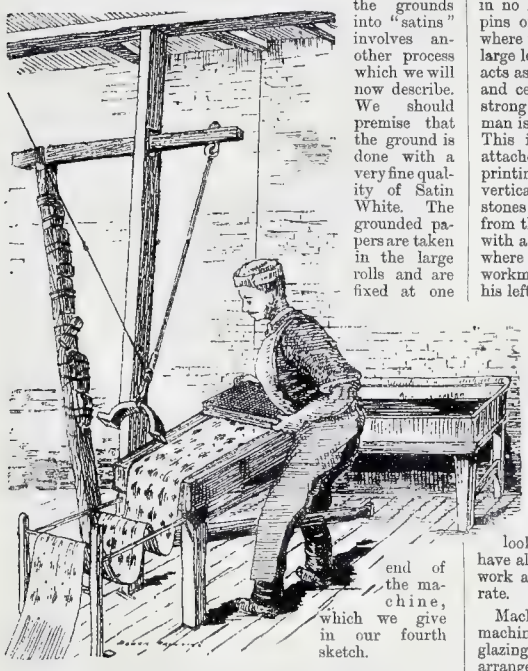
Having thus cleared the ground by these preliminary descriptions, we will traverse the works in the order of the different departments as they occur in the progressive stages of the manufacturing processes.

The first room we enter is that known as the Paper Stock Room. This is the department where the various strengths of paper are kept in their plain state, ready for grounding, or printing without grounds. This is of necessity a very large department, containing as many as eight thousand rolls of paper, each roll measuring between 1,200 and 1,500 yards, equal to 120 pieces. Another section of this department contains the plain grounded and satin papers ready for printing. These are ranged in large rolls in different colours, and when required for printing purposes so many yards are cut off, or so many rolls are given out, according to the number of pieces that have to be printed.



From the paper stock room we will go to the Colour Rooms. There are two departments devoted to colour mixing—one for block goods and the other for machine made goods, the latter being the most extensive at Hyde Road. In these rooms are ranged all the numerous shades and tints, which a large establishment like Heywood Higginbottom's of necessity demands, and a large staff of men are kept constantly employed, renewing the different colours as they become used up and making fresh shades for new arrangements. The department is a very important one as, now-a-days successful colouring ranks equal to design in the estimation of the purchasing public. The block room being on a more limited scale than the machine printing department, less hands are employed in making the colours. In this department the block-printed goods are all first printed to get the right colours and make the standard patterns, after which it is plain straightforward work. The department next in order of manufacture is the "winding" or grounding room, this is the department where the plain papers are grounded, and in one portion of it the papers are glazed or "satined" after the grounding. The manner in which the grounding is done is at once ingenious and clever. The paper is fixed underneath the machine in a roll of some hundreds of yards continuous length. At the end of the machine is fitted a trough, into which the grounding colour is poured, mixed to a proper consistency. Above this trough are fixed two rollers, about two feet apart, the bottom half of the lower roller revolving in the colour trough; round these two rollers is stretched a continuous piece of felt; this felt, when the machine is set in motion, revolves round the two rollers and collects the colour from the trough in its course. Now the paper is taken up by the machine, carried between some rollers and the outside surface of the felt; this being wet with the colour, conveys it to the surface of the paper in unequal masses. The paper is then carried round another roller on to a flat piece of stretched felt, fixed at the top of the machine; the paper travels over the surface of this felt and is subjected to the action of a brush, of which we give a sketch. This brush is fixed on a vertical shaft, and revolves round it in a very regular rapid manner. In the main drum are fixed four brushes, and these not only revolve with the drum but rotate on their own shaft, thus ensuring a double action. These brushes distribute the colour to one even surface. The methods adopted for drying are two-fold, and are each very clever. The one system is known as "drying by pans," and the other as the "horizontal bar" apparatus. The first method consists of a long series of hot air or hot water pans, about forty or fifty yards in length; over these the paper, as it is grounded, is carried, and by the time it reaches the far end it is perfectly dry. At this end the paper is carried from the pans over a roller to one suspended from the ceiling, and as it descends again it is laid or "plaited down" on to a long truck by a boy, as shown in our sketch. This plaiting down is very deftly done with sticks—a stick in each hand—and though it looks very simple, it takes some little experience before it can be done rapidly. The second plan is known as the "horizontal bar apparatus." Imagine two sets of flat parallel bars horse shoe shape at the far end. These bars are fixed well up above the grounding machine from which they receive the paper in a very clever manner. These parallel bars are connected with the grounding machine with bars running down to the level of the felt, in a circular form, describing just the quarter of a circle. These circular bars are traversed by a piece of round iron which works on a pivot, and just describes the circular form alluded to above. As it descends towards the paper a loose rod is dropped into a groove prepared for it. This rod picks up the paper from off the machine, and carries it up to the level of the top bars where it leaves the rod and the paper suspended from it. This process is repeated, and as each succeeding length of paper (about eight yards) is taken up it is allowed to droop festoon fashion, and carried forward along the parallel bars alluded to before, these, with the return being about 100 yards in length; and as the arrangement admits of about four droops to the yard, it will be perceived that a great length of paper can be hung up at once. The paper is kept in suspension until it is dry, when it is plaited down on to trucks, whence it is rolled

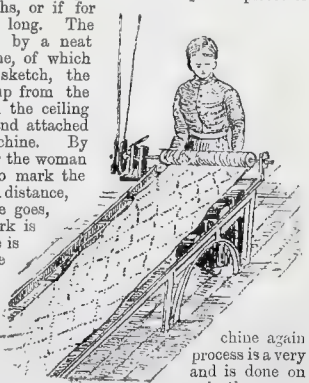
up again in large rolls, and taken to another part of the works for further treatment. For grounded papers no other treatment is necessary before printing, but the converting of the grounds into "satins" involves another process which we will now describe. We should premise that the ground is done with a very fine quality of Satin White. The grounded papers are taken in the large rolls and are fixed at one end of the machine, which we give in our fourth sketch.



It will be noticed that there is a kind of box attached to the machine at the end furthest from the man. Into this box is put finely powdered French chalk. As the paper is carried from the large roll over and under the two rollers near it, and from these to the one immediately under the box containing the French chalk, this latter percolates through the bottom of the box on to the grounded surface of the paper, and in this form is subjected to a succession of cylindrical brushes revolving at a high rate of speed. The friction produced by the rapid revolutions of the brushes causes the glazed appearance known as "satin." It will be seen that the paper undergoes the friction of six of these roller brushes before it leaves the machine, and is "plaited down" by the man at the far end. This is always done on to trucks, to facilitate the clean conveyance of them from one part of the works to another. We have now got the paper from its raw state into the different conditions in which it is ready for printing either by hand or machine. The hand printing processes are very primitive, and have not changed much from their first invention; indeed, there is not room for change, and though in some little points different workmen affect different ways, the broad lines of the process are fixed and unalterable. We give a sketch of a workman busily engaged in printing a piece of paper. Unlike the "machines" which are printed in continuous rolls of great lengths, the hand made goods are printed in lengths of one, two, and three pieces. The workman stands in a little square made by his bench at the side, and his colour trough at the top. As he faces his bench the roll of paper is to his right, and is carried out to his left as it is printed. The colour trough is a small cistern inside which is lightly stretched a piece of felt. On this felt, the colour the printer is using is distributed by the boy in attendance on him; the block is then pressed on to the colour pad, and takes up the colour on the engraved parts, it is then carefully placed in position by the printer. This is done in no haphazard manner, but is regulated by the points or pins on each succeeding block, indicating the exact place where the print must be placed. Now comes in the use of the large levers we see in the sketch. The upright support which acts as a fulcrum is a fixture, and is firmly secured to the floor and ceiling. Through this is fixed a stout horizontal bar of strong wood, which at the extremity furthest from the workman is attached to a strong plank of wood with iron bands. This inclines at the foot towards the workman, and is attached to the lever which projects from underneath the printing bench. As will be seen by the sketch, this vertical plank is heavily weighted with various sizes of stones tied tightly on with cords. It will also be noticed that from the horizontal lever over head is suspended a stiff rod, with a kind of horse shoe plate at the end, this is the point where the whole arrangement comes into use. When the workman has placed his block in position on the paper, with his left hand he swings down the iron plate on to the centre of his block, and, by pressing his foot on to the lever underneath the bench, he brings the whole weight of the combined levers on to his block, and thus throws off the color from the block to the paper. Continued experience makes the men very deft in this work, and what looks complicated and clumsy is in reality very rapid and simple. In many printings, where the masses are very small, the leverage is not called into operation, but where broad masses have to be colored it is always required. The French adopt a slightly different plan; instead of working the lever with the foot it is done by the hand, and in some cases, the lever is three or four yards long, and is swung upon by the boy in attendance on the printer. This looks even a more roundabout fashion than the one we have already described, but those who have seen the men at work assure us they get through it at a marvellously rapid rate.



Machine printing does not admit of much description, the machine in its general outline is similar to the one used for glazing the papers, but, of course, in its internal arrangements widely different. It consists of a series of rollers and color-troughs, these carefully adjusted, so that each one can take up its own work in its own place and properly register. To see a piece of paper go in at one end of a machine plain, and come out on the other side printed in twenty different colors, all complete, is a very wonderful sight. The papers as they come from the machines are carried in a horizontal position through cavernous passages about 60 yards in length—and in their passage through are dried by hot air. As they run out into the chamber on the other side they are plaited down by men and boys and conveyed to another part of the building to be rolled up into pieces of twelve yards lengths, or if for export, eight yards long. The rolling up is done by a neat smart little machine, of which we give a slight sketch, the paper is carried up from the lower floor through the ceiling to an upper floor and attached to the rolling machine. By pressing a foot-lever the woman in charge is able to mark the paper, at the required distance, and off the machine goes, when the guage mark is reached the machine is stopped by a move of the hand, and the piece cut off, placed on the truck near at hand, and the machine again set in motion. The process is a very rapid and simple one and is done on "piece-work," a woman, in the course of a day, being able to get through a great number of pieces. Some of the papers, before they come to be "rolled up," have to undergo the process of embossing or ribbing, this



is effected by passing them through engraved steel rollers cut to the required surface.

A department by itself at Hyde Road is that devoted to the manufacture of oaks and washable papers, these are printed from engraved rollers, and by stippling, and various strengths of line engraving, several depths of colour can be produced at once. These washable papers are finding an increasingly extended application every day, and their sanitary qualities commend them to the favorable consideration of all friends of sanitary reform. Yet another department, and we have completed the round of the manufacturing portion of the works. This, though last, is by no means the least important, especially in the opinion of the obliging and intelligent foreman.

We have in our time got through a fair share of marbling, but in our quickest days we never reached the lightning rapidity of execution we found to be quite common here. Benches fourteen yards in length are ranged round a large room, and on these are placed the paper to be marbled, in twelve yards' lengths; the ground color being in a large tub near at hand. Into this is now dipped the "grounder," a round brush similar to the one we show here. Whilst we stood gazing to see the next operation, the workman was at the end of the twelve yards' piece, and the work was grounded. The next thing to be done was putting in the broad masses of yellow we see in Sienna papers; this was done by a youth, who gyrated from right to left in a remarkable fashion. Now the veins were put in; this was effected with the aid of blocks—purple, red, and light-red or deep yellow. Three processes yet remain before the marbling is finished, the first of these is putting in the whites, which is done by the aid of large camel-hair brushes; the second is the badgering, done, not with the soft and sumptuous badger hair, or even hog hair, but with a good honest flat brush. The last process of all is that of putting in the scumbling; this is not done with a feather, but a round brush dipped into white, and splashed on to a stick. The incautious spectator finds out that the scumbling is not confined to the papers, if he goes too near. The paper is now hung up to dry, and then rolled up ready for sending out. Marbled papers have not now the general use they had twenty years ago, but as wall decorations for staircases, lavatories, and similar surfaces they are not without considerable claims on the attention of the decorator.

We have now run through all the departments where the actual processes of manufacture go on, and it only remains for us to visit the stock room and warehouse before bidding adieu to the works. As may be expected in the case of a firm having such a wide field of operations as Messrs. Heywood, and Higginbottom's cover, the stock rooms will be of considerable capacity, and to show the enormous expansion of the paper-staining industry since the abolition of the paper duties and the improvements introduced in modern machinery, Messrs. Heywood, Higginbottom, and Smith, will turn out annually nearly one-third the quantity of pieces returned as the total product of the United Kingdom in 1861, and this, notwithstanding the presence of large and enterprising rivals in the field. The stock room has two departments, "home" and "export," and even when "low" contains an enormous quantity of papers. From the stock room the goods are drafted into the warehouse from whence they are packed up and despatched to all parts of the globe. It was a novelty to see amongst the packers busy at work one totally blind walking about with a sureness of step that betokened familiarity with the ground he traversed, and, strange as it would appear, we were informed that, the man could hold his own against two or even three men (possessed of all their faculties) in making up bales. Messrs. Heywood, Higginbottom, and Smith have an able staff of skilled mechanics on their premises, and most of the machinery in use has been made by themselves, several of the important improvements being the invention of one or other members of the firm. The patternbook of the firm is made up with a view to a general use, and caters for all classes of popular consumers. We hope at some later date to give a sheet of illustrations of the firm's goods. In closing our notice we must express our thanks to the manager and foreman for their courtesy and trouble in explaining all the details we have been able to put on record for the benefit of our readers, and to wish the firm a continued period of success and prosperity.

ANSWERS TO CORRESPONDENTS.

EXCELSIOR.—We know of no work better than Owen Jones's "Grammar of Ornament" for the study of ornament. From it you may acquire a correct and thoroughly useful knowledge of the various styles of ornament suitable to all styles of architecture; not only so, but it is filled with suggestions of design as well as the complete designs left to us by the great masters of decorative ornament. It is the fashion of some of our decorative artists of the present day to deprecate the teaching of Owen Jones—notably Lewis F. Day, but whether Mr. Day is right or wrong in his opinions, we are quite certain that if he lives to the age of Methuselah, he will not do so much good in the furtherance of a true knowledge of the principles of decorative design as Owen Jones has done. To him we are indebted more than to any Englishman of recent years for the great progress made within the last forty years in the principles and practice of all branches of decorative art, therefore, a close study of his works must be to your advantage. With regard to home study, you must always bear in mind that it is by home study that most men arrive at any successful result. It does not matter how much you study in the schools; if you do not supplement the instruction there received by constant study and practice at home you will not get on. In season and out of season the pencil or chalk should be in constant use. Decide what you intend to be, set that end distinctly before you, and devote every moment you can to every kind of knowledge which will conduce to the result you have in view. It is only by such a course that you can arrive at the desired end, always bearing in mind that under all circumstances it depends upon yourself and yourself alone whether you attain your object. Books and practical instructions and good models will materially aid your progress, but there is no royal road to knowledge, work and study are the only levers you can use with success. The description of "How to Grain Walnut Wood" will be found in the November Number for 1881.

J. & R. P., LEIGHTON BUZZARD.—We are surprised that the Indian red does not stand on the plastered walls. We do not remember a case in our own experience in which we have had any difficulty when distemper has been stained with Indian red. The greys and blues being of course made with lime-blue will not be affected by the lime in the new plaster. We can suggest no other remedy than either a coat of paint, or lining the walls with white lining paper, and distempering upon that. That is a plan we have used for a long series of years on new walls, and have found it to answer our purpose admirably, being both as to cost and quality of work much the cheapest in the end. A case came within our own experience about two years ago with results similar to yours, only the faulty colors were the brown and stone color shades, whereas the grey tones stood without a sign of going. This was due, we think, to the action of the new plaster on the color. In this instance, too, the same colors were used as you employed in your second attempt. We cannot vouch for it, but we think that Messrs. Wilkinson, Heywood, and Clark's new colors would stand. They are made to resist the action of lime.

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THE Journal for next month (August) will contain a splendid double sheet printed in colors and gold. In consequence of the great cost involved, the charge for the August number (only) will be 9d.

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"Remember therefore always, you have two characters in which all greatness of Art consists:—First the earnest and intense seizing of natural facts: then in ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

IMPORTANT NOTICE.

IN our September number, we shall resume the subject of Sign-writing; illustrated by four pages of alphabets, both plain and ornamental, in various types. The whole of a practical and useful character, to be followed in a future number by double page illustrations of Ornamental Tablets, Ribbons, and Labels, in numerous positions, Hands pointing, the Royal Arms of England, and the Prince of Wales' arms, with letterpress descriptive of the proper colors to use in blazoning them, and other useful items, which we trust will be a valuable aid to all engaged in the painting and decorative trades.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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CHAPTER XXX.—EMBOSSING ON GLASS. WHITE ACID.

WE come now to the description of a most important improvement which has been introduced of late years in the obscuring of glass by means of an acid, instead of grinding it as before described. As we pointed out, sheet glass by reason of its uneven surface could not be ground or obscured in the same manner as plate glass, although this difficulty was in some measure obviated by means of the sand blast, but as the latter process requires special machinery to work it, it was of necessity confined to the use of large firms, and of course, its practical usefulness was limited in consequence. Certain chemists had for many years directed their attention to the production of an acid that should produce an opaque or semi-opaque matt surface as near the effect produced by grinding the glass with emery or sand. At length a celebrated French chemist succeeded in making an acid that would deaden the glass, producing a surface through which light could pass, but which could not be seen through. The importance of this invention to the glass embosser or glass writer cannot be over estimated as by its use sheet glass can be used instead of plate, thus reducing the cost so materially that an extensive trade is done in a direction which before was practically closed to the general public. In enumerating the advantages derived from the use of this acid we may point out first that while hitherto the designs on the glass must be embossed or sunk beneath the surface before the body of the glass could be obscured or ground, we can by the use of this acid obscure any fractional part of a sheet of glass without the designs being embossed. And in the second place, designs may be put upon the glass with the acid, the design itself being frosted or obscured—or the design can be left bright and the ground obscured—and these can be coated with silver in the same manner as mirrors are done, and the effect produced will be of dead and bright silver, or matt and burnish. Gold and silver leaf may also be used for the same purpose, producing admirable effects. This is the more readily done because the white acid while effectually producing a dead or matt surface, is not so rough or coarse as the surface produced by the grinding with emery or sand, and from this cause it is also not so white a surface as the latter. The grinding roughens the surface of the glass and being rough it presents innumerable minute angles to the light, which reflect the light, and so produces a whiteness which the matt of the acid does not effect, although the difference between the two is so slight in looking through them that it is not readily perceptible. It will be obvious that the effect produced by this white acid may be utilised in many ways in combination with gold and silver leaf, or with the simple contrast of the dead and bright surfaces alone. A dead ground, and a bright letter, outlined, with a black, or a gold, line will have a very chaste effect. We have seen some most beautiful effects thus produced. In fact there is a very wide field for the exercise of manipulative skill and good taste in this direction.

HOW TO USE THE ACID.

In using the white acid the same care is required as in the embossing. The design must be put upon the glass in the usual manner as described before, and a wall of wax or grease put round the square and the acid poured on, but only just sufficient to cover it, and let stop on for 30 or 40 minutes; then poured off and the acid washed off with cold water, then the black washed off with spirits, and the glass well washed again with soap and plenty of clean water to take off the remains of the black from the glass. This acid may be used again and again. After being used, the acid should be tested on a small piece of glass, and if it bites the glass unequally, or freckly, a little strong fluoric acid must be added to it until it gives an even deadness or matt. If properly used the same acid will do a great amount of work.

We have very great pleasure in giving our numerous subscribers the valuable information contained in this article, as it is calculated to obviate numerous difficulties which stood in the way of glass and sign writers, who, while desirous of executing such works, were deterred by the difficulty of

grinding the glass afterwards, making any attempt at embossing both costly and laborious. The white acid process does away with all this labour, and even in the case where glass is embossed we have simply to cover the embossed parts with the Brunswick black and then put the acid on, and it does away with the necessity of grinding; this simplifies the matter and enables any of our readers who are desirous of doing this kind of work to do so without having to depend upon anyone else for aid.

As a matter of course the French being the inventors, supplied this acid on its first introduction, but a better article than the French acid may be procured from Messrs. Wilkinson and Son, the eminent chemists, of the Attercliffe Chemical Works, Sheffield, who are also large makers of the best quality of fluoric acid, and from whom prices and all particulars may be obtained. We may note also that this firm send out a special make of Brunswick black for glass embossing which they guarantee, an advantage which our readers will know how to appreciate, as it saves all trouble and doubt in the working.

(To be continued.)

RANDALL'S DRIERS. — These driers, made by Messrs. Randall Bros., have now been before the trade for some time, quite sufficient to test their quality, however, and we are glad to learn that so well have they been appreciated, that the proprietors and manufacturers have done a very extensive business in them. We were amongst the first to commend them to the favourable notice of the trade and have had them in constant use ever since, with the greatest satisfaction to all concerned. Those of our subscribers who have not already tested them cannot do better than invest in a sample gallon and put the accuracy of our testimony to the test. We refer to them again in connection with a new form of the drier just being introduced to the trade by the same firm. This drier is almost colorless and is especially made with a view to fine tints. We all know that many beautiful tints suffer through the driers discoloring them. In the new siccative now offered to the trade by Messrs. Randall Bros., they have a medium which is a splendid drier, and which is so pale that it can be mixed with the lightest tint without detracting from its purity in the least. We like to commend useful articles to the notice of our subscribers from whatever quarter they come, and we hope that our advice is acted upon as far as it can be adopted, and we repeat here again, the assurance we have made before that, our recommendations are in all cases based on our experience.

A NEW DISTEMPER.—Not the least useful and valuable of the many new inventions which are submitted to the notice of the painting trade is, a new distemper, made and sold by Messrs. Fordham and Sons, of Curtain Road, E.C. We are not familiar with the manufacture of the material alluded to, nor does it concern us here. We only have now to deal with accomplished facts, and here is one that, in the new distemper, the proprietors and sole makers have one of the most useful and genuine of the varied articles employed by a painter. The distemper we refer to is, in its nature and character, the same as ordinary distemper, with this difference, that in Fordham's distemper the ingredients are all picked, and are of the best and finest qualities and exact proportions, so that the painter has only to take a small quantity of the distemper powder, place it into the bucket, and then pour on boiling water, and he has a distemper ready made, perfectly fast, and smooth in its working. We prefer it infinitely to the usual methods of soaking whiting and mixing it with glue and size, and after the experience of the last two months we should be sorry to revert to the old process. The distemper is sold at 8s. 6d. per cwt. in London, and any employer desirous of simplifying the detail of his business for his men cannot do better than send for a sample hundredweight cask and try it for himself.

SCOTCH NOTES.

TRADE keeps fairly good in Scotland, and many employers assure me that this is the best season they have had for years. Others are complaining, but being by habit and repute "grumblers," they don't count. They are as bad to please for trade as farmers are for weather. Speaking of farmers, I recently heard of one who actually wanted rain and dry weather at the same time, one field needing moisture and another sunshine. Of course, there is no denying the fact that, even although work is fairly plentiful, yet the prices are not what they should be. On the other hand, the employés have behaved admirably during the past three years, no harassing disputes having arisen to prevent work from being done quickly and cheaply. The men know very well how prices are cut, and are quite satisfied with the wages.

Education is doing a great deal for our trade, and many employers are alive to the fact, the result being that over 1,000 men are at present working at the Board Schools in the large towns. To allow this good work to be satisfactorily carried out, the regular scholars kindly agreed to remain away for several weeks, and the schools are being size-colored in the interim.

I recently had the pleasure of seeing through a large house, which has just been completed for Dr. Whitelaw, Medical Officer of Health, Kirkintilloch, near Glasgow.

The plans were by Malcolm Stark, junior, Esq., Architect, Glasgow, and he has reason to be pleased with the result, both as regards external appearance and internal arrangement.

The house is of the domestic Gothic style of architecture, freely treated, a large mullioned and transomed window to the left of the principal entrance door being the principal feature, and which also forms the base of the tower. The roofs are broken up by picturesque dormers, and covered with Scotch green slates and ridges, with red fireclay tiles. The interior is finished in a very superior style, the large hall, which is about fifty feet long, being elaborately and harmoniously decorated. Entering off the hall are the library, dining-room, parlour, &c., which are treated in a simple, yet thoroughly artistic manner, the dining-room especially being very effective. The upper landing is treated similar to the hall; from it we enter the drawing-room, which is furnished in a rich and effective style. The walls are panelled, the panels being imitation damask, the stiles being decorated in colour and gold judiciously blended. The woodwork is decorated on a soft, neutral-tinted ground, varnished over. The house contains about twenty apartments, and has been decorated by Mr. Wm. Douglas, Glasgow, with great satisfaction to the architect and proprietor.

One of our leading Scotch decorators, Mr. Wells, recently gave a lecture on House Decoration before the Glasgow Architectural Association, and I have much pleasure in sending you the following report of it:—Mr. Wells first referred to Nature in the fields as a safe guide in forming a true knowledge of "breadth" in colour, and then to animal nature, as in the plumage of birds—especially the common varieties of our own land—for the harmony and variety obtainable by using different shades of one colour, one or two leading principles were deduced, and their practical application shown by supposing a typical house and going over the various apartments in detail. The effect of unison between the decoration and the uses of a room—as richness for a hall, elegance for a drawing-room, and cheerfulness for a bedroom—though aimed at by most designers, is sometimes lost by using too many different colours, or too much white, and thereby obtaining a chilly feeling, which is quite apart from brightness. The paper was illustrated by numerous examples of Japanese leather-work, wall papers, tapestries, and silk hangings, and at the close, after a few remarks from Mr. Sellars, the hearty thanks of the members were awarded to Mr. Wells.

I regret to hear of the death of Mr. Thos. Brown, decorator, Dundee, which sad event took place on 14th July. He was one of the oldest and most highly respected master painters in the North of Scotland.

The painters' work of the Central Station Hotel, Glasgow, is just about completed, and is one of the most important jobs done in Glasgow for some time past. Next month I hope to send you a descriptive report of it.

PETER PALETTEKNIFE.

LESSONS IN TILE AND CHINA PAINTING.

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CHAPTER II.

IN large biscuit or glaze kilns there are often two or three fire holes, and the fire is carried round the kiln by an arrangement of flues. The heat required to fuse the glaze would also fuse an iron kiln, therefore, fireclay bats and bricks are used throughout, and all a potter's skill and knowledge are required to make a good glaze or biscuit kiln and it is, therefore, seldom attempted out of the potteries.

A very little kiln is called a muffle, and a small box muffle is the most suitable for firing at home. An exact wooden model must be smoothly made by a carpenter and from this a casting in iron can be made at any iron works. The inside measurement of a small box capable of holding two six-inch tiles need not exceed 10 inches in length, 6½ inches in width, and 2 inches in depth; let there be a projecting ledge inside to support the topmost tile and let the under tile be raised from the bottom by some small chips of pottery.

The casting is charged for by weight—a small box of this description need not exceed a quarter of an inch in thickness. For a larger box, let the increase of the whole be proportionate.

It is only necessary to place such a box in a fireplace so constructed as to keep a small fire burning evenly round it, and the little muffle is complete. The difficulties to be guarded against are these, the cracking of the ware, over fire, under fire, and sulphurous fumes.

If the fire is not increased very gradually, the pottery is very apt to crack; equal care is, of course, required in the cooling. Over-fire, fires out the colors; under fire, does not fuse them sufficiently to make them glossy. A cherry red heat is required for ordinary enamels; a single trial will show better than any description. Last, but not least, is the trouble from sulphurous or other fumes. Cast iron emits fumes during the first firing, and sometimes afterwards. It is, therefore, not advisable to put anything of importance in till the iron has been heated to redness. There is, however, one capital preventative, and that is lime. Wash the box well out, and then coat it inside with a thin wash of lime and water, carefully removing the old lime and renewing it before each firing. Stop up the mouth of the box with a piece of tile and plaster of paris before firing, not forgetting to leave a small hole open till the evaporation is completed; after which stop it up loosely, only looking in occasionally to see how your firing proceeds. These directions are practical and the result of actual experience, and are, therefore, reliable; but firing is often disappointing, and we do not recommend the attempt when it is possible to get the work fired at a moderate charge.

*

But this description of the method employed is likely to be of interest and much use to many who do not actually desire to put it into practice, for without some knowledge of the processes employed, the nature of the materials, and a clear understanding of the changes undergone by them, it is impossible to meet with complete success, for there are mishaps and failures, the causes of which are often connected with the firing and which, though generally simple, become disheartening obstacles in the absence of the knowledge of the reason why; and it is to the little "working difficulties" which have turned so many aside that we propose to devote our especial attention.

Painting in oils on Terra Cotta is frequently resorted to by those who have failed at china painting, and solace is sought in amusing arguments, and endeavours to show that this method is an effective substitute, but there is always present a consciousness that it is a perishable one, of but little value and by no menas the real thing.

Many kinds of ware for painting on are obtainable. Some articles are much ornamented with raised work or fret work borders, but as a matter of taste it is to be considered how far a busy border will interfere with the repose of the painting in the centre. The plain circular and slightly concave china plaque if nicely made, always looks well, and the eye is immediately struck by its shapeliness. The clumsy thick edged goods are generally earthenware, and in buying china it is necessary to be sure it is not earthenware which is pressed on you as china, for although every one has some idea of the difference between the two, many persons are deceived for the moment by, an assurance that the inferior article is china, and some never find out the difference, or are confused by the description that the article is "china glazed" or the best stone ware. Ordinary china is a vitrified glassy body, which should look luminously transparent when held between the eye and the light.

Square and oval china plaques are to be had in various sizes, and are nice for some highly finished work, but tiles usually answer every purpose and are much cheaper. Six and eight inch tiles will be found most generally useful, the nine inch tiles are for some reason nearly twice as dear as the eight inch. Very light buff or cane-colored tiles are excellent to paint on, especially for panels for interior decoration, they look somewhat lighter when painted on, and give the work a richer quality of tone than the white ones.

There is a great variety and difference in the make of enamel colors, and the method of preparing the best is known only to the makers of them, for the wide reputation of many firms rests on the superiority of their wares and, the beauty of their colors. The French colors are very excellent and much used in England. When the difference between the metallic bases of the colors is considered, it will be easily understood that they cannot be mixed indiscriminately. Some colors neutralize each other and some, particularly the iron reds, are especially fugitive.

The oxide of lead, in the form of red lead, white

lead, or litharge, is largely used in making glazes and enamels. It is much used to assist in the fusion of flint, which it softens and makes fusible at the required temperature.

A blue enamel may be made by fusing flint, lead, and borax, which is in itself a beautiful soft glass. A very little oxide of cobalt added to this will impart a deep blue tinge; but to give it solidity the addition of some opaque white is required, and the oxide of tin possesses the necessary qualities. These ingredients fused together, poured while hot into water, and ground to powder, would form a simple blue color. Oxide of copper in place of cobalt would give a green color. These oxides are so powerful that they color the whole mass to which they are added, and will intermix without destroying each other. But this is not the case with reds obtained from iron—oxide of iron, if there were an excess of glassy material would disappear, or turn a faint yellow.

An iron-red, called pompadour, and several other bright scarlet reds, will not intermix, but are very useful by themselves. Another set of reds, distinct from these in appearance and qualities, includes rose colors, carmines, and purples. These are all of a similar nature, and produce some intermediate tints when mixed with other colors. The mixture of two colors almost invariably results in a loss of brilliancy; but many soft shades, of great use to the artist, may be produced by judicious mixtures.

It will be found that some colors work much more freely than others which seem to be of a fat, oily consistency, and clog, or work short. This is because they are less intense, and require to be put on more thickly; and such colors, when fired, will be observed to remain somewhat raised on the surface of the glaze. Carmines, rose colors, and some blues are of this nature, and may be observed on the fired sample which is usually kept where enamels are sold, and, when there is any choice, the thin, strong colors should be preferred. As the unmixed colors are more pure and bright, an endless variety of prepared tints are sold. This variety is greater because the color-maker can seldom make two lots of color of exactly the same shade; therefore, instead of attempting to enumerate them separately, we propose to describe them generally under certain heads, in accordance with their characteristics, in such a way that they may be easily recognised.

The enamel colors of different makers are of various degrees of fusibility. Those which are harder, or less fusible, are not so glossy when fired to the lesser degree of heat required for those which are softer.

The enamels generally used in the Potteries are somewhat harder than those supplied retail to the public. There are various kinds of soft glasses, called fluxes, which are used for the purpose of softening hard colors, and making them more glossy, or for mixing with gold.

The colors sold for china painting are usually good, and prepared in very convenient forms. They may be bought either singly, in tubes mixed in oil or water, or unmixed, or in boxes containing complete sets and fitted with other necessary requisites. These boxes are certainly very prettily got up, and the prices run from one to five guineas, but a dozen judiciously selected colors are all that are absolutely needed.

(To be continued.)

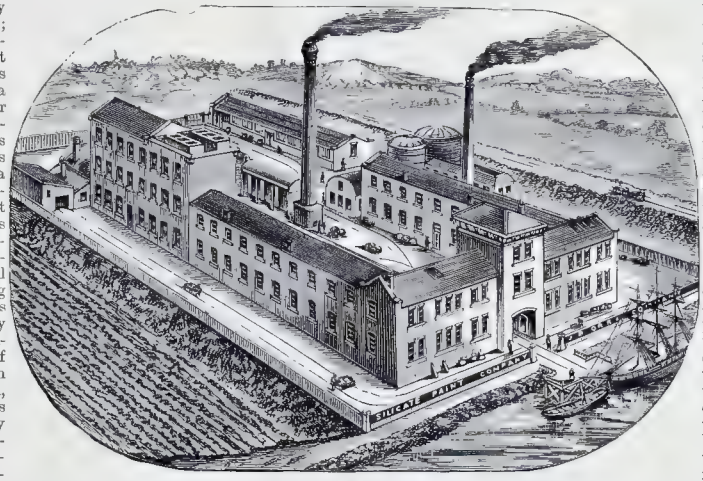
THE BUILDING TRADES EXHIBITION AT MANCHESTER.

The Executive Committee are to be congratulated on the very excellent and representative show of goods and names they have succeeded in gathering together within the walls of St. James's Hall, Oxford Street; and those of our subscribers who have not been to the London displays should not by any means fail to pay a visit to the one now open in Manchester. Indeed, whether they have been to the London exhibitions or not, a visit to St. James's Hall will show much that is new and worthy of inspection. An exhibit that will not fail to attract the attention of decorators is Stand No. 49, occupied by **the Papier Maché Company,** of 20, Wellington Street, Strand, London. The P. M. Co. make so many articles which a decorator can use to advantage that we can only enumerate a few of them, and must leave it to our readers to visit the Exhibition itself and there see the actual work. The finger-plates made and decorated by the Company are bold and sharp in their relief, and the bronzed ones, as specimens of clever bronzing, are simply perfect. Centre flowers is a trade specially cultivated by the Company, and their designs and prices will compare advantageously with those of any other firm. In their "corners" suitable for panelling walls, in their pateras useful for bordering panels or ceilings, in their mouldings for all sorts of purposes, and in their dado decorations, there are plenty of resources for the decorator to produce artistic and unique effects at very moderate cost, as a visit to the stand will demonstrate. Cornices made ready for fixing in fibrous plaster is another large department of the Company's operations, and ready effects can be obtained by these cornices without the unpleasantness and inconvenience attendant upon making a cornice *in situ*. All particulars can be had by writing to the Company's head-quarters, and their interesting illustrated catalogues are to be obtained for a very reasonable amount. Stand No. 43 is one of some interest to the decorator, and is occupied by the **Willesden Paper Company.** This material, from its permanent character, offers many facilities for decorative work that the decorator should avail himself of. It is made in four different strengths, and is suitable for decorating for friezes, panels, and many other purposes; it is proof against rot and window damp, and thus presents a permanent surface on which the best work can with safety be done. The next stand in numerical order is, perhaps, the most interesting exhibit in the hall, as it is by far the most extensive. This is the stand occupied by Messrs. Holme and Co., the Japanese and Indian merchants, of 7, Farringdon Road, E.C. This exhibit occupies the whole of the large platform at the far end of the hall and is divided into sections representing the different countries and their manufactures. We could not attempt to even outline this display, and can only call attention to it, with the assurance that any time bestowed in examining the contents of this stand will be well repaid. A very good collection of Japanese wall papers, screens, &c., is to be seen here. Stand 46, **Messrs. Thomas Heighway & Son,** of Deansgate, Manchester, is the only decorator's stand in the Exhibition, and is a varied collection of the different materials at the command of the decorator of to-day. At the time of writing, some decorations specified in the catalogue are not to be seen, but no doubt they will be shown a little later. Messrs. Scott, Morton, and Co. have a good display of their now well-known Tynecastle Tapestry. The "T" Tapestry is a most artistic and beautiful decoration, and one which obtains effects unique in wall decoration. Near to here is the stand containing the famous **Lincrusta Walton.** This material may now be fairly said to have established itself as a decorative medium of undoubted merit. Its permanency, its sanitary qualities, combined with the beauty of the designs, will always ensure for it a warm place in the public favor. Next month we shall refer to the Exhibition again, but meantime we would advise all who can to see it themselves.

OUR MANUFACTURING INDUSTRIES.—No. X.

A VISIT TO MESSRS. J. B. ORR & CO. AND THE SILICATE PAINT COMPANY'S WORKS, CHARLTON.

FIFTEEN years ago an enthusiastic Scotch chemist, on the shores of the Clyde, was hard at work in a series of experiments entered upon with a view to provide a pigment that should combine all the density, colour, and body of white lead, and yet avoid its deleterious features. This has long been the object of eager research on the part of chemists of all times, and not unfrequently when the years of patient endeavour appeared on the point of fruition, failure came from one side or another to disappoint and discourage. The great and admitted defect of all zinc whites up to within the last few years has been the apparently insurmountable difficulty of giving to the pigment anything like a respectable "body," or covering power. Everyone admitted the purity of zinc oxide, but that was of no avail by itself; and it was not until Mr. Orr perfected the results of many years' attention to this one point that the difficulty was solved. Scientific discoveries will leave a mark on the Victorian period of this century, which will ever render it remarkable in the annals of the world's history. Some, of universal benefit, such as the steam engine, telegraphy, and the still more recent developments of electrical science, are world-wide in their publicity and their results; but, quite outside these great discoveries which startle a universe by their rapid evolution, is a class of inventions occupying a much less exalted plane, but none the less equally deserving of the attention of all right thinking men. To this latter category belongs the invention of "Charlton White," which, whilst it does not immediately affect the comfort or convenience of the million does, more or less, directly appear to the goodwill of every householder inasmuch as the manufacture is another step in the direction of ameliorating the condition and incidences of the life of our labouring classes, and further, is a decided mitigation of the dangers incidental to house painting. The workman engaged on its production, the painter in its application, and the public who have to submit themselves to periodic house cleaning are all interested in the success of a manufacture which removes the danger attending upon the use of white lead.



Scientifically, "Orr's Charlton White" is a success. All the difficulties have been surmounted and in Charlton White the trade, and the public, have a pigment superior to white lead in its covering properties, purer in colour, and of equal lasting power, and it remains for the trade to do justice to itself by taking the matter up and thoroughly testing its qualities. The manufacturers solicit the most careful scrutiny and comparison of its merits with those of white lead or any other pigment, and are confident that where this examination is entered upon in a fair and unbiassed temper the verdict will be given on their behalf.

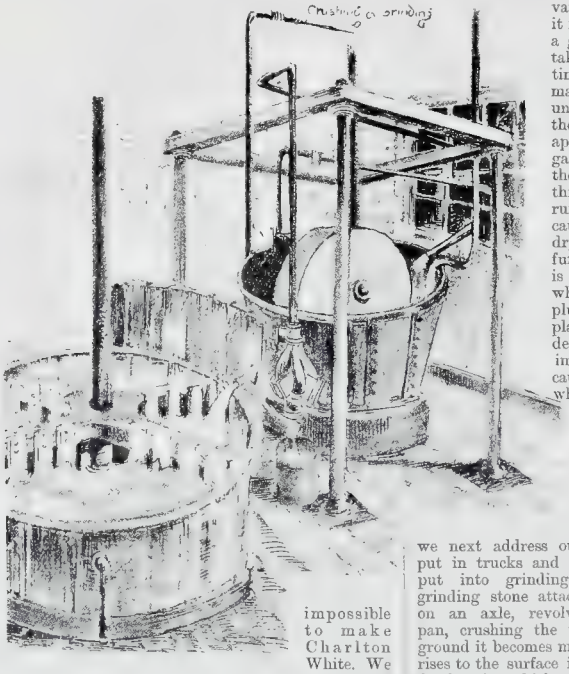
The first operations of the Silicate Paint Company were not altogether successful till 1879, when Mr. Orr was invited to take the manufacture up. For that purpose he moved from Glasgow to London, and, when shortly afterwards a change in the *personnel* of the firm took place, Mr. Orr remained behind as principal proprietor; and the firm has ever since been known as J. B. Orr and Company.

The works are situated on the banks of the Thames, just above Woolwich, and in immediate contiguity to the world-famed manufactory of Messrs. Siemens. They are modern, having been built not quite six years, at a cost of some £40,000, and are fitted with all the appliances and conveniences which we look for now-a-days. Having been built for a specific and special manufacture, they are in consequence arranged with a view to the particular requirements demanded of them. The bird's-eye view we give at the head of this article will show the extensive character of the place far better than any words of ours. The chimney, which rises in stately dignity from the centre of the works, is a well-proportioned structure, and conveys the gaseous exhalations out of harm's way.

We may premise our description of the actual processes by a word or two as to the constituent elements of Charlton White, or, as a Scotch wag facetiously called it, "Charley White." The primitive elements or sources from which the ultimate products are made are barytes, strontium, and zinc, which after various manipulative processes and treatments —which it is our office to describe —are brought together and ultimately appear as Charlton White and Duresco.

There are two distinct series of preparatory processes involved in these different constituents to bring them into such a condition that they will combine. We will take the one that relates to the baryum and strontium first. The first step in the process is what we may term mixing. The barytes and strontium is mixed in certain fixed proportions with finely crushed coal, and assumes a leaden hue, looking like so much refuse, and, to use a Yankee phrase, not worth "schucks," the exact value of which we should find it difficult to state, but we may take it as very low down in the scale of equivalents. After this the compound is put into a furnace (one of four connected with each other), and subjected to a great heat for the space of two hours; at the end of this time it is turned over into No. 2 furnace, and after that to No. 3, and then No. 4, till at the end of eight hours it is taken out of the fourth furnace, and carried to another part of the works. These furnaces are kept constantly going, and the fires are not allowed to go out; relays of men taking up the work morning and evening and so keeping up a continuity of manufacture. The effect of the furnace on the strontium and barytes is to bring about a chemical decomposition, and to produce a soluble salt which is dealt with later on. The burnt barium is carried to an upper floor in waggons and thrown into a large pan and mixed with water. This causes the salts in the substance to become soluble. and from this pan they are pumped up to a large circular receiver on the top floor, in the form of a greenish liquor, as little like a paint

or the source of a paint as we can well imagine. This brings the barytes and barium to a point where it is ready for the infusion of the other element, and without which it would be



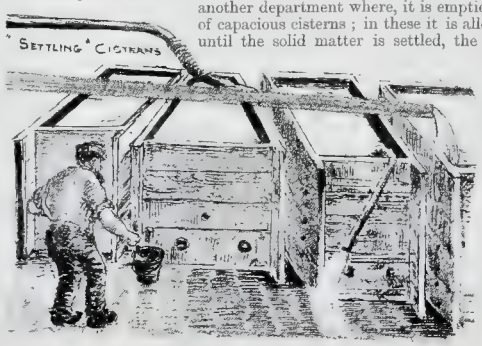
impossible to make Charlton White. We now ascend from the top floor on to the roof outside, and there we come to a cistern, which is the starting point of a new series of methods. A zinc ore obtained from poor calamine is worked into a pure metallic condition. This zinc is put into cisterns and submitted to the influence of hydrochloric and sulphuric acid. The effect of this is to isolate the zinc and hold it in a soluble form. Sometimes a considerable percentage of copper is present in the ore, and this is carefully extracted and drawn off into other tanks. Boiling water plays a very important part in the methods employed, and great economy is therefore needed. To this end a condenser is called into use, and by its aid no less than 300 tons of boiling water is obtained per week. The condenser is fixed on the roof, near to the zinc precipitating tanks.

We will now return to the zinc tanks in which the soluble zinc is held. By a series of pipes the liquid zinc is conveyed into a tank on the lower or first floor. Into this same tank is drawn the greenish solution from the upper tank, and both are throughly stirred up by an Automatic Steam Mixer, thus we get the first chemically complete amalgamation of the constituents. Henceforth the processes are applied to the one body, the only one existing, and at this stage we may say that we have Charlton White in an embryo form.

It usually happens that after the greenish liquid is drawn from the tank on the top floor there is a large sediment or deposit of undissolved matter. This is taken outside and thrown into heaps and the gentle influences of Mother Nature are allowed to work upon the refactory mineral. After exposure for sometime it loses its black sludgey appearance and turns yellowish green, at which stage it is put into the furnace a second time and subjected to the same treatment we have before described, and invariably with satisfactory results. The paint in solution at this point of its manufacture resembles nothing more than "attenuated" milk, it is conveyed from the mixing vat into pans on the bottom floor, where it is allowed to settle. After standing for a given time it assumes a solid form and is taken out and put into a press for the first time, the press causes most of the liquid matter to exude from the white, and when unscrewed the white drops from between the press cloths with all the outward appearance of moist pipe clay. It is now gathered up into trucks, conveyed outside the works to a drying shed, and there thrown on to a stone bed, under which flues run warmed to a gentle heat, gradually causing it to dry. From these beds the dry pigment is taken and thrown into furnaces heated to an intense heat, here it is allowed to remain for some hours, and when considered ready is drawn out and plunged into cold water. This singular plan is resorted to to give solidity and density to the future paint, the sudden immersion in cold water of the hot mineral causing a contraction of the substance which remains with it to the end.

The white has now assumed the appearance of "fallen" lime, that is, lump lime that has lost its nature somewhat and crumbled into small pieces, and, as may be well imagined these small pieces of white are very hard, and to the task of compelling them to assume a necessary softness, we next address ourselves. The hard lumpy pigment is put in trucks and run along the line into the works and put into grinding pan No. 1, here a large circular grinding stone attached to a vertical shaft and working on an axle, revolves round its axle and traverses the pan, crushing the white in its course. As the white is ground it becomes more and more mixed with the water and rises to the surface in the natural order of things. Here is fixed a pipe which carries off the finely ground white into a second vat, fitted up with another set of grinders of a different kind. In the centre of this vat, which is much larger in its dimensions than the first one, is fixed a very strong upright revolving shaft; to this shaft is firmly secured four long arms, covering the entire diameter of the vat. On each of these arms are four strong pendant pieces of wood, securely bolted to the cross arms by bolts and nuts, to these upright pieces of wood are secured square slabs of granite with one edge slightly bevelled to admit of the color getting underneath the stones. The centre shaft is set in motion, and the whole of the arms revolve round the vat or cistern, the color is forced between the two surfaces of the bottom of the vat and the under surface of the pieces of granite, and is thus ground to the requisite degree of fineness.

Attached to this second vat is a pump, which draws off the white in solution, and conveys it through pipes into another department where, it is emptied into a series of capacious cisterns; in these it is allowed to stand until the solid matter is settled, the water is then drawn off by a syphon arrangement and, the white taken out and conveyed to an adjoining room and placed in cisterns in the floor. From these it is pumped up into the press for a second time, and the superfluous water pressed



out. After standing in the presses for some little time it is taken out and put upon small wooden trays, made out of narrow ribs of wood ; these are carefully carried into a drying stove, a large room with hollow cavity walls round which the hot air is carried. Around the walls and across the floor are fixed racks, made out of T iron, and on to these the trays containing the moist pigment are placed. Here they remain for a considerable time till the material is quite dry, but to make assurance double sure, before the white is ground with oil it is spread out on long flat steam pans and here the last remaining trace of moisture is expelled. It is now "Charlton White," not as we know it, but in a dry state. In this form large quantities of it are sold to paint manufacturers for all sorts of purposes and uses.

The process next involved to bring it into the form known to our readers is also the final one. The white is taken from the steam chests and poured down a "shoot," adjoining which is a funnel-mouthed pipe, down which is poured linseed oil in proper quantities to thin the white sent down the shoot; these come together before they reach the bottom, are carried on to the machine, and ground to a very fine texture. We have heard the objection advanced against Charlton White that it does not amalgamate or mix thoroughly in the can. This objection might have been sustained in the early history of its manufacture, but Mr. Orr's latest patent has obviated this difficulty, and as now turned out it is as smooth in the working as any white lead in the market.



Our article would be incomplete if we failed to notice a product of the company's that divides with Charlton White the fame that is justly accruing to Messrs. J. B. Orr and Co., this is the washable distemper, "Duresco." Duresco is really Charlton White made soluble in water, and possessing the unique property of resisting water when dry. The Charlton White is taken in its dry form, and the apparently impossible task of effecting a union between oil and water is successfully accomplished and the decorator has a medium that is *non secundus* to any other known material of a similar commercial value. Long ago we recognised the usefulness of Duresco in the decorator's armory, and have in these columns consistently advocated its more extended use. Speaking now after the experience of many years, we unhesitatingly endorse all that we have said in the past in its favour ; and we are pleased to hear that this high opinion of its merits is being shared in by architects, decorators, and sanitarians all over the world.

Happening on one occasion to be in the offices of the Silicate Paint Company, in Cannon Street, we were the unintentional auditors of a gentleman from Jerusalem, who was giving extensive orders for Duresco, for the purpose of applying it to the houses and public buildings there. Imagine the Sepulchres of the Prophets being "Durescoed." Well may we exclaim with the Hebrew bard, "How are the mighty fallen?" when nineteenth century civilisation rubs shoulder to shoulder with an historic past.

The beautiful coloured sheet given with this month's journal is proof to a demonstration of the artistic capabilities of Duresco, and he would be a sceptic indeed, who, after seeing the original (which is imitated in the drawing), should doubt any longer. It is also gratifying to us to know that in many instances our recommendations have been adopted by our subscribers, and where persevered in have always resulted in success. Messrs. Mc.Culloch and Gow, the designers of the prize screen, have just recently done a large institution at Colchester, where many thousands of square yards have been covered with this celebrated distemper; and a splendid exhibition of the merits of Charlton White is to be seen in the interior decoration of the National Provincial Bank of England in the City of London. After leaving the department wherein the Duresco was made we traversed the length of the works to another part where are made the Charlton enamels. These enamels have made for themselves a great reputation for their hardness, lustre, and body. At the recent Building Exhibition at Islington, one of the most notable of the exhibits in the paint section, were the specimens of enamel exhibited by Messrs. J. B. Orr & Co. ; they attracted marked attention and deservedly so. In addition to the departments enumerated above we visited the varnish room where the Charlton varnishes are made, the color striking and the color drying room, where are made all the numerous and beautiful varieties of colors we are familiar with on the Company's sheets. Passing thence we explored the stock rooms, the warehouses, and the packing rooms, completing our tour of inspection by visiting the laboratory where are conducted the experiments which sometimes lead to great discoveries. It was pleasing to notice the healthiness of the men employed on the works; the precautions which obtain in all white-lead manufactories are rendered unnecessary here by the innocuous character of the materials employed. The men handle it with impunity and feel no deleterious effects from it. This is not the least commendable feature of the undertaking, and one that will enlist the sympathies of all sanitary reformers. The admirable facility for transport afforded by the waterway to the front of the works, and the immediate neighbourhood of the railway system at the rear, place the company in an exceptional position for dispatching their goods, and even whilst we write a barge stands moored to the little jetty loaded with "Charley White" for shipment to the banks of the Clyde.



The company have three centres of operation, 32 Seel Street, Liverpool, where the old original works were first established ; 173a, St. Vincent Street, Glasgow ; and 46, Cannon Street, E.C., and the works at Charlton. Agencies are established all over the world, and only just recently Messrs. Docker Bros., of Birmingham, have been appointed for that district for the sale of "Japanners' White," a new white introduced by Mr. Orr for the special use of Japanners, and for which already a great demand has sprung up. Messrs. Dale and Plant, also of Birmingham, have got the local agency for the Silicate Paint Company's specialities, and altogether the Company are manifesting signs of active aggressive work that speaks well for its continued success. To those of our subscribers who have not as yet ventured to try either the Charlton White or the Duresco, we would tender the advice that they lose no time in doing so, assured that a fair trial will bring conviction of the superior merits of both materials.

YOUR object in advertising is to make the public understand whom you are, where you are, and what you have got to sell ; and if you have not the pluck to keep advertising until you have imparted that information, all the money you have spent may be lost. A French writer says that "The reader of a newspaper does not see the first insertion of an ordinary advertisement ; the second insertion he sees, but does not read ; the third insertion, he reads ; the fourth insertion, he looks at the price ; the fifth insertion, he speaks of it to his wife ; the sixth insertion, he is ready to purchase ; and the seventh insertion, he purchases." The grand secret of success is to advertise—not sparingly, and by fits and starts,—but constantly, and ALL THE YEAR ROUND.

ADVERTISING is to business what steam is to machinery, the grand propelling power.—*Lord Macaulay.*

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

(ALL RIGHTS RESERVED.)

(Continued from page 366.)

CHAPTER XX.—ON THE MANIPULATION OF THE WHITES IN MARBLING.

BY this means we get a contrast of solid white with the semi-transparent patches as left in the first painting, the stony effect being got with ease, if the work is done with judgment and care. We do not produce that depth and transparency we do in the Sienna and Rouge, simply because it is not a feature of the marbles, but, as will be seen by the patterns, the effect of marble is equally good in the one as the other. If properly done, this marble requires but little scumbling with the feather and white, but a little does soften and improve it.

MARBLE PATTERNS.

In accordance with our promise we here give instructions for rubbing down and varnishing the marble patterns we have sent out. We have—in order to keep down the cost—sent out these patterns under one and two coats of varnish. It will be evident that every hour expended upon them apart from our own time in doing them, would have to be paid for in addition. This would have brought up the price so much, that it would have placed the patterns out of the reach of those for whom we undertook to paint them, consequently we have thought it advisable to give the necessary instruction and let the owners themselves expend as much time upon the varnishing and polishing as they may feel disposed. The Academy boards upon which they are done have a tolerably good surface to begin with, and with strict attention to the following instructions and great care in the manipulation a capital surface polish will be obtained which will add very much to the stony effect of the marbles. We are accustomed to see the real marbles—even the Granites—ground down to a level surface and polished. Smoothness is essential, and this can only be done by patient and close work, carelessness and impatience to finish often destroys the work. We therefore urge upon our readers the absolute necessity of careful and patient rubbing down so that no scratches are made on the work which, when they occur cause endless trouble to rectify. For cutting down the surface of the pattern we shall require some very finely pulverised pumice stone, great care being observed in procuring it and seeing that it is free from coarse particles or grit. It is a good plan to pass the pumice through fine muslin before using it so that it contains nothing objectionable. We shall also require a piece or two of felt, these should be about four or five inches square, one piece may be laid upon a flat piece of wood of the same size, using patent knotting to fasten it to the wood. If the felt cannot be readily procured, part of an old cloth coat makes a good substitute, several pieces of this may be fastened together to make a pad, with the wood, and without. The panels must be taken out of their frames and laid flat upon a level board or table. We then take the felt on the wood in the right hand and with the left throw on to the panel a little water then a little ground pumice stone and, using the felt lightly and carefully, begin to rub down the surface giving the hand a circular motion and *not* straight up and down as, the latter method does not cut down equally but in stripes; the circular motion being the only one that will do the work properly on flat surfaces. We keep working at it until the surface is cut down to one level plane. We should use a sponge and clean water and wash off occasionally, to see that we are not injuring the work by too much rubbing in one place. Here we must caution our readers when rubbing down the marble patterns we have done—that they will only bear a slight rubbing down before having more varnish upon them, but they may be lightly rubbed down to take off any nitts or slightly rough places, and after being well washed and dried with a clean wash leather, they should have two three or four coats of varnish before being rubbed down level. The body of varnish upon them being so slight great injury may soon be done to them, but with this caution in mind it may be avoided. In putting on the successive coats of varnish preparatory to cutting down; the work should be damped down with a damp chamois leather between each coat, this will prevent the varnish sissing or contracting and forming a series of round holes. Some painters use whiting or fullers' earth for this purpose but that plan injures the varnish and makes dirty work. When the three or four coats of varnish have been put on the panels they should be left to harden for the space of a month at least, but the longer they are left the harder the varnish will be, and the harder it is and the better and more level it will cut down. When hard enough it should be cut down to a level surface as described above. We would then give them two more coats of varnish and let them stand another month or more when they will be ready for polishing. This polishing on the varnish is a very difficult thing to do because, it requires so much care and patience in the doing; hurry or undue haste will not produce good work, but will certainly insure bad work. A great deal also depends upon the kind of varnish used, for, if the varnish be not of the right sort, all the care in the world will not insure a good job. We have a choice of polishing varnishes, but of course these are not always the same, the best of makers sometimes have a bad lot. A little too much heat, or not enough, or some difference in the quality or quantities of some of the ingredients used will often spoil a batch of varnish; and so it is that varnishes from the same maker are not always the same. But polishing varnishes must be good, or they certainly will not answer the purpose intended. Of these the French Oil Varnish is one of the best polishing varnishes we have, but unfortunately, it never gets thoroughly

hard, and will soften under the heat of the hand years after it has been done. That has been our experience in using this varnish, and we have panels that have been varnished with it for upwards of twenty years which although bearing a good polish now, will soften under the heat of the hand and will reave up under pressure, but not crack. Then we have the Pale Polishing Copal Varnish, and Pale Polishing Carriage, Pale Polishing Body Varnish, all these are the very best of oil varnishes and will answer the purpose in view. Some of course will be better than others, but if it is ordered from a first class firm we may be tolerably sure of getting the right article, and we have no doubt but that any of the large firms of varnish manufacturers who advertise in this journal would supply say a quart of a first class varnish for a purpose of this kind at the wholesale price. This would be much the best plan to insure good work. When the varnish is thoroughly hard, we cut down the panel carefully and lightly until it shows one level dead surface; we then let it stand for a day or two until the exposed surface becomes hard. We make a boss or ball of cotton wool and enclose it in two or three folds of calico covered with a piece of an old silk dress stuff, and use rotten-stone and water to rub down with, still using the rotary motion we spoke of above. With this we keep rubbing until the surface begins to assume a semi-polished or smooth surface. We now use the rotten-stone and boss with olive or sweet oil, and keep lightly rubbing until the polish begins to appear, taking the greatest care that no dust or grit of any kind gets upon the work, or all the labour will be in vain. When the polish begins to look as if it were rubbed enough with the rotten-stone and oil, we throw some flour on to it and thus clean off all the oil. The finish of the polishing may either be done by rubbing with the cotton boss covered with silk or with the hand—in this wise—we use a clean damp wash-leather, holding it in the left hand, and with the right hand which must be washed perfectly clean, we first rub it on to the leather then using the ball of the hand alone we press it on the work and draw it gently forward using a slight pressure; in doing this a slight whistling noise will be heard. This is repeated all over the surface, and if properly done will bring up a bright polish. Of course some practice will be required before the workman will be able to do it properly. This is the case with everything that takes time and trouble to accomplish, but no success is gained in any walk of life without trouble and thought, so we need not be disheartened if we fail at first to attain our end. Our failure should only nerve us to further efforts and make us the more determined to accomplish the object we have in view. Patience and perseverance conquer all difficulties. So the old adage says. Be this as it may, there can be little doubt but that the difficulty, whatever it may be, is half conquered if we make a firm determination to conquer it. Coach painters as a rule do not finish their work by polishing, but they carefully rub the work down on two or four coats of varnish and finish with one flowing coat of the best varnish, as much as 40s. and more being given for such varnishes; and by using great care they get up a surface like a mirror without polishing, which will keep its gloss for years of hard usage. Now when it is not convenient to polish these panels they may be finished by this latter method. Before giving the finishing coat of varnish, the bottle containing it should be left uncorked for a few hours. This evaporates some of the spirit from the varnish, and causes it to have a fuller body, and a fuller coat can be used without danger of its running. The varnish should be laid on full and crossed and recrossed until it begins to set a little, when it may be left; but in the case of panels which can be laid flat, the varnish will only require to be laid equal all over and it will then flow of itself into one uniform surface. Brushes and every thing used in varnishing should, and in fact must, be perfectly clean and free from nitts or grit and dust, or else the work will be spoiled.

(To be continued.)

OUR ILLUSTRATIONS.

THE beautiful coloured plate we give with this number was the first prize design in the *Journal of Decorative Art* recent prize competition in Section I., Class B., "The Charlton Prize," given by Messrs. J. B. Orr and Co. The design is for a staircase decoration and was sent in by Messrs. M'Culloch and Gow, of St. George's Road, Glasgow. It is well conceived, and colored in a bold and masterly manner; only a very clever colorist could deal with strong colors like these, and manipulate them successfully. The design is strongly Japanesque in feeling and treatment, and was one of the most successful decorations of the whole exhibition.

The screen was executed in Duresco, and the peculiar soft and beautiful texture Duresco has when stippled, gave to it an additional charm and attraction. Speaking of the screen, Mr. Robinson, F.S.A., the adjudicator, says—

"Spes" submitted a very ably designed and executed section of the raking wall of a staircase treated in the Japanese manner with plenty of plain colour on the main wall, and exhibiting that very rare virtue, the knowledge of when to leave things alone. Most decorators think that the more ornament they can crowd on to their surfaces the better their work is; but he who can produce the best effect with the least effort is the wiser man, and "Spes" has kept himself well within bounds. When he has used ornament he has used it well and wisely, and the distribution of his color is equally clever with the distribution of form. It is a work of very great merit.

Messrs. M'Culloch and Gow are well known in Glasgow, as pushing enterprising men of business, and clever artists in addition.

THE fellow who could do all the business he wanted to without advertising, has been compelled to advertise at last. The new advertisement is headed "Sheriff's Sale."

THE path to success in business is the path of common sense. Push hard, and don't be afraid to venture your money to increase it. Remember that nothing produces nothing; and you may turn your nothing over a long time before it will grow into a five pound note; and you might just as well blow against a hurricane, try to run a steam engine without coals, or drive a water mill without water, as to hope to succeed in business without advertising.

THE PAINTING OF VENETIAN BLINDS.

IN our last month's Answers to Correspondents, we gave the results of our own experience in the painting of Venetian blind laths. But, as for very many years we have not done any ourselves, but have made a practice of sending them to the regular blindmakers to be painted, we were not quite sure whether there might not be some improved methods of working practised by these firms, and seeing the subject to be of importance to our subscribers, especially to those of them who do not reside in large towns, we have made special inquiries at one of the largest firms of Venetian blind manufacturers in the country, and give here the results, which may be depended upon, and will no doubt be useful, as many of our subscribers will occasionally have them to do.

In the painting room of all large establishments of window-blind makers, space is required for putting away the laths as they are painted, and to economise room, this is effected by having long strips of wood, about four inches broad and two inches thick, which are hung from the ceiling at a convenient height for the workman to reach. Through this wood strong wire rods, ¼ inch thick, are fixed, projecting about 20 inches on each side, and placed a few inches apart, to allow space to prevent the edges of the laths touching each other. Or these wires may be fixed into wooden rails secured to the walls. Upon these wires the laths are hung as they are painted, taking care that they do not touch each other. By this plan it will be at once seen that a vast number may be painted and hung up to dry in a limited space and kept clean, whereas if they are placed with their ends upon a floor they are apt to pick up dust and dirt. The bench upon which the painting is done may be the ordinary paint-shop bench, or a 12-inch board laid upon a table or bench will do, all that is required being two nails knocked in at one end to place the end of the lath against while painting it.

New Blinds.

In our answers last month we were not quite sure whether size color was used in the large shops. We find that it is the universal practice in these large establishments, but for all this we certainly would prefer to use two coats of patent knotting in lieu of the size color.

We here give the proportions of the ingredients for making sufficient size color to cover over twenty sets of window blinds—that is to say, to cover over the numbers of laths required to make the above number, the laths for each window being called a set:—One pound of glue to six pounds of the best washed whiting, or Paris white, as it is sometimes called. This is mixed to a working consistency, and stained according to the color they are to be finished. If they are to be finished green, a little black, forming a light lead color, may be used, but if for drab or stone color, ochre and umber is used as a stain. When the color is dry, they are rubbed down lightly with fine sand paper, and finished with two coats of paint.

The Paint and Varnish used.

Blind painters, as a rule, make their own varnish for mixing with the paint, and it is made from resin and turpentine alone. They say they cannot get what they buy to work the same as that they make themselves, but we rather doubt that statement, and feel quite sure that the varnish may be procured from any of the large varnish making firms advertised in our columns. However, be that as it may, we give the proportions and process, which is exceedingly simple, but of course will require great care in the melting and handling of the resin, as it is highly inflammable and an accident might very readily occur, but with care no apprehension need be entertained.

The proportions to make sufficient varnish to mix with the paint to cover the twenty sets of blinds are mentioned above, is as follows:—

Put six pounds of the common resin of commerce into a two-gallon saucepan and keep it on a slow fire until it is all melted. It must now be taken from the fire to a safe distance, and two quarts of turpentine added to the resin, keeping it well stirred until the turps and resin are thoroughly mixed together.

To Mix the Paint.

In mixing the paint, if the blinds are to be finished green, it will require the following quantities:—

Three pounds of mineral green—which may be procured ground ready for mixing—14 pounds of white lead, these are mixed well together, the whole of the resin varnish is then added and well strained, when it will be ready for use. This quantity will give two coats to the 20 sets of blinds. Should the last coat not be glossy enough, then more varnish must be added.

Other colors.

For stone colors, drabs, greys, or any other light colours:—

Six pounds of zinc white (Charlton white); six pounds white lead. Add the same quantity of the resin varnish as for the green, and stain with the ordinary staining colors according to the tint or shade of color required.

Old Blinds Repainting.

These require to be first well washed, then rubbed down with fine sand paper, and painted two coats of the same mixture of paint as before described.

It will be seen that the whole process is exceedingly simple, *when one knows it*, and may be executed by any painter having the necessary convenience.

The method of painting is as follows: The paint is placed convenient for the right hand. The pot containing it should have a piece of wire across it in the middle. This is used to scrape the brush against when it has too much color in it, and thus avoiding waste of paint, which is inevitable if the brush is scraped against the edge of the pot, where it accumulates on the sides, but it cannot do

this when the wire is used. The lath is taken up with the left hand, one end of it being placed against the two nails in the bench, previously mentioned, and painted the one side and then the other. It is then taken up and hung on the wire which goes though the hole at the end of the lath and thus left until dry and hard. The lath is picked up, when painted, with the extreme end of the handle of the tool they are being painted with, which is put through the hole and thus carried and put upon the wires.

It is advisable for the workman when painting the lath to have the left hand covered with an old glove or any other covering that will not hinder him in his work, as the left hand in handling the laths must of necessity become covered with the paint, and very injurious effects produced, but as a rule we find that men will rather run the risk than take the slightest trouble to prevent being injured by the paint. This is the case in almost all branches of the painting trade. Men will sit down to their meals with paint upon their hands and never dream of washing them, and the butter off their bread, and the grease or fat off the meat gets on their hands, softens the paint, and they swallow it along with their food, and then wonder how it is that the paint makes them ill. Our space will not allow us to go into this matter here as we should like, but at some future time we shall return to it.

BOOKKEEPING.

FOR PAINTERS AND DECORATORS.

CHAPTER IV.

We resume our subject with an acquaintance with the method and working of—

THE CASH BOOK, and LEDGER.

Nothing conduces so much to the well-being and working of a business as a well kept cash book because, it is the medium through which all money received and paid is recorded.

Cash received for work done and goods sold, and in fact every element of receipt is placed on the debtor or left-hand side of the book, and money paid for materials bought, and wages, and every element of payment, on the creditor or right-hand side.

A Cash Book should be folioed and ruled with double columns on each page with a margin for folio of the posting in the ledger. The first of such columns is intended to be used for putting in any discount or allowance made for accounts received or goods sold, and this column should be added up and carried forward just the same as the second or principal column which is used for the net amount of money received, and the same process should be gone through on the right-hand side where discount is allowed off accounts paid, or goods bought. We give here-under an illustration of the ruling and keeping of a Cash Book to more readily convey our meaning :—

DR. CASH ACCOUNT. CONTRA. CR.

		Led. Folio.	Dis-count							Led Folio.	Dis-count				
1883 Jan. 3	To W. Jones....	2			1	4	1883 Jan. 3	By Randal Bros.	8	1 1 6		19	10	
,,	To Bank	3		8	19	10	6	,, 4	By Petty Cash..	9			2		
,,	To J. Alexander	4			9			,,	By Bank	10			10		
,,	To J. Smith	5	2	2	4	8		,,	By do.	10			4		
,, 4	To J. Wild	6	1	9	3	3		,,	By Wages	11			6	6	3
,,	To W. Johnson..	7	2	10	5	4									
	Carried forwd.		7	5	42	9	6		Carried forwd.		1 1 6		41	16	3

Now that we have completed our Cash Book it is necessary to post it up into the different ledgers, that is, placing the amounts as entered in the Cash Book as received, to the credit of the customer's account, and placing the amounts entered as paid, to the debit of the manufacturer's or dealer's account, and this brings us to

THE LEDGER.

This book is not a self-contained one, as the Day Book and Invoice Book are, but is made up of entries posted to it from either of the following books, viz., *(a)* Day Book, *(b)* Invoice Book, *(c)* Cash Book, *(d)* Returns Book, and therefore we must impress upon our readers the desirability of nothing being introduced or posted into the Ledger without first appearing in one of the books before mentioned, or in some other book acting as a substitute for one or all. In posting to the Ledger the Day Book should be first touched. Assuming William Jones to have business with one of our readers (see our illustration of the working of the Day Book in April number) the item of £1 5s. 2d. should be posted to his debit on the left-hand side of the account, and any cash received or discount allowed should be posted to his credit on the right-hand side, and then the account is ruled off and balanced, and so on with regard to the other portions of the Day Book, which still remain to be posted.

DR. WILLIAM JONES. CR.

1882 Dec. 8	To Goods.....	27	1	5	2	1883 June 5	By Cash..	1	1	4	6
							,, Discount. ..				8
			1	5	2				1	5	2

Taking up the posting up of the Invoice Book we will take Randall Bros. item (see April number) as an example. This firm it appears we buy goods from to the extent of £20 11s. 6d. This amount should be posted to the credit of their account (as under), and the cash paid and discount allowed to the debit, and so on with T. Webb and Co., and the Copal Varnish Company.

1882	To Cash.....	4	19	10	0	By Paint	5	20	11	6
	,, Discount....		1	1	6					
			20	11	6			20	11	6

The same Ledger can be used for posting amounts received from bank (cheques drawn) where a banking account is kept and for money paid into the bank, the items of receipt appearing on the debtor side of the Cash Book, being posted to the credit of the Bank, the items of payment being posted to the debit of the bank.

DR. LLOYD'S BANKING CO. CR.

		Fol.	£	s.	d.			Cash B'k Fol.	£	s.	d.
June 26	To Cash paid..	5	20	0	0	June 26	By Cash received ..	3	30	0	0
,, ,,	,, do.	5	50	0	0						
							By do.	4	20	5	0
							By do.	5	19	10	0
	Carried forwd.		70	0	0		Carried forwd..		69	15	0

Every entry made in the Cash Book should be posted to some account or other in the Ledger, such as Cash Sales for goods or materials sold for cash, being posted to the credit of an account in the Ledger, called Cash Sales Account. The same should be done with all items of payment taking (for example) offices expenses and rent, wages, and miscellaneous expenses. These payments being posted to the debit of an account appearing under their respective headings, the totals of the accounts could be thrown together in one account, called General Expenses, if thought desirable. By this means the whole expenses though being analysed would be clearly shown, as thus :—Instead of having only one Ledger, which is quite sufficient in a small business, it is desirable for a large business, to have two or three, the first called the Sale Ledger into which postings from Day Book are made ; Bought Ledger into which postings from the Invoice Book are made, and Class Ledger into which wages, expenses, &c., are posted.

DR. WAGES ACCOUNT. CR.

1883.							
June 6.—	To Cash	3	6	9			
9.—	Do.	4	2	8			
16.—	Do.	2	5	10			
		10	5	3	By Transfer to General Exs.	10	5

Dr. —— Office Expenses. —— Cr.

1883.						
Jan. 1.—To Cash, Rent .. 5 ..	13	15	0			
—To Books ..... 6 ..	2	7	0			
—To Petty Cash .. 6 ..	2	0	0			
	18	2	0	June 30.—By Transfer to General Exs.	18	2	0

Dr. —— General Expenses. —— Cr.

1883.						
June 30.—To Miscellaneous Exs.	3	4	0			
—To Wages	10	5	3			
—To Office Expenses ..	8	2	0			
	31	11	3			

We propose next month to show how a Profit and Loss Account is made up. We trust our readers have derived some benefit and instruction from our articles, and would say that if they would like to ask any questions or seek an explanation about the method and system of bookkeeping, we shall only be too glad to afford them all assistance in our power.

(To be continued.)

TRADE INTELLIGENCE.

The spirit has been moving amongst the churches; more churches having been painted this year in the Manchester district than has been the case for many years past; their aggregated dirt must have been awful to contemplate, and must have entirely precluded any proximity to godliness. Mr. Reuben Bennett has been busily engaged in the work of renovation, and has decorated near upon a dozen churches in as many months. One of the most recent that has left Mr. Bennett's hands is St. Stephen's, City Road, Hulme, and though our space this month will not admit of a detailed description, we shall take an early opportunity of describing it, as it is one of the most satisfactory specimens of church decoration we have seen for some little time.

Trade generally has been more brisk this year than for many past seasons, and a satisfactory feature of it is that, it has been a steady trade and not subject to the fluctuations that are not unknown to painters and decorators. We hope all our subscribers have participated in the improved state of affairs; that many of them have we know, and we trust it has been widespread.

New Parcel Post.—Messrs. John Line and Sons, of Reading, desire to respectfully point out to their numerous customers that decorators generally will be specially convenienced by the new arrangements, as a single room of paperhangings can be procured from any distance in the United Kingdom for a mere trifle—7lbs. being the maximum carried for 1s. Supposing the paper required for any room not to exceed 14lbs., 2s. would be the outside cost. An extra piece is now easily procurable, 3lbs. being carried for 6d.; cut lengths of borders, &c., or, 30in. dados may be sent without being creased or folded. They trust this extra facility for the delivery of goods from a distance will be the means of greatly increasing their business. The new patterns will be ready in January, 1884. Early applications are necessary to secure a set and should be made before the middle of November of this year.

At Mr. Deschamp's, at the foot of New Bond-street, is now to be seen, in company with many other agreeable articles of taste, a large glass window, designed and executed by Mr. John La Farge, who is to America what Mr. Burne Jones is to us, and who is one of the most interesting and original artists whom the States have produced. His frescoes in the Church of the Trinity in Boston are perhaps the things of the kind best worth seeing in America, and for the last fifteen years he has been acknowledged to be the leading colourist over there. His talent has affinities, as we have said, with that of Mr. Burne Jones, as well as, on another side of it, with M. Puvis de Chavannes. The great window at Mr. Deschamps's seems to be constructed partly with pebble, but of this we are not certain. It represents a plant of the chrysanthemum in full flower, the leading roughly following the outlines of leaf and petal. The colour is extremely rich and harmonious, a clear liquid green and a dull indigo-blue being specially noticeable. We are not so well satisfied with the border, which simulates a mass of some pale amber-coloured jewel, and presents a speckled appearance at a distance.

The Oldham Fine Art and Industrial Exhibition promises to be a great success. The committee have been unwearied in their efforts to make it both representative and attractive. The display of machinery in motion will be almost unexampled in the history of local exhibitions, whilst the Fine Art attractions will rank very high indeed. When we say that Messrs. Agnew and Sons have undertaken the collection and arrangement of this section of the Exhibition, we have given a good guarantee that nothing will be left undone that can be done to ensure success. In general industries, and in the Art industries, the committee have had a very good response to their announcements; so that visitors may look forward to seeing a really good exhibition.

ANSWERS TO CORRESPONDENTS.

G. N. A., Jersey.—We should have qualified our remarks with "in England," and we think with this we are then correct in our statement.

J. F. R.—We have no definite information as to the methods used in cutting stencils by machinery, having had no experience in that line. We should surmise that they are stamped out by steel cutters of the patten required. If any of our readers have any knowledge of the subject we shall be glad to receive it.

H. T.—McCulloch and Gow's portfolio of designs and stencils is a very useful one to a decorator who is pressed for time, and wants his designs ready prepared for him. The coloured examples are good specimens of strong vigorous colouring—the price is fifty shillings inclusive of stencils—the publisher is Mr. Gentles, merchant, Sauciehall Street, Glasgow.

Onward, Leicester.—The instructions for graining walnut will be found in the November number of the Journal for 1881, of which a copy may be obtained at the office.

C. L., Preston.—In gilding sunk letters on white marble tablets, the gold size will not run or stain the marble if it is polished as is usually the case, but if it is not polished, then it will be best to give the work a weak coat of size to prevent the staining. In gilding sunk letters, they may—if not in the open graveyard — be gilt with the tip and cushion which is the best and cheapest way, but if this is not practicable then they must be gilt with the paper which may be prepared by slightly rubbing it with a cake of white wax cut straight and square and lightly rubbed over the paper before taking up the gold leaf with it. But this may be dispensed with, as the gold beaters now prepare books of gold fastened to the paper sufficiently to allow of the leaves being cut and applied to the work. This would be your best and cheapest plan. In cutting the leaf you must exercise your own judgment, it should be cut as near the size required as possible so that there will be little waste, and the pieces will be laid down with greater ease.

Art Student.—We think the drawings remain on exhibition to the end of August.

JOSEPH MASON & CO.,
MANUFACTURERS OF
VARNISHES, PAINTS, & COLOURS,
5, Derwent Street, and Burton Road,
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The Journal of Decorative Art.

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"Remember therefore always, you have two characters in which all greatness of Art consists:—First the earnest and intense seizing of natural facts: then in ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

THE POSITION OF THE DECORATOR.

TIME works changes, and one of the least agreeable phases of the modern revival and zeal for all things pertaining to "Art" is, that self-elected and self-constituted oracles on all art matters abound on every hand, to the utter perverting of all acknowledged rules, the result of years of accumulated experience and observation. In the large majority of cases the difficulties arising from this superficial knowledge are nothing more serious than a more or less temporary irritation, and, perhaps, a passing disturbance of the digestive organs. But there are difficulties of a graver kind and of a more substantial character from which the Decorating Trade is suffering to a degree not generally recognised, but against which they can, if so minded, contend with something like a prospect of success.

We live in times when the old lines of demarcation between trades have been lost, and have become merged into a wholesale system of barter. Now-a-days, a cabinet maker and upholsterer is your painter and decorator, will bank your surplus funds and supply you, literally, with your daily bread; will sole and heel your boots "while you wait" and fit you up with anything in the way of clothing from the most approved cut of a coat to a "masher" collar and tie. Under such a system the vital spirit which should animate all trades and crafts is in danger of being crushed out of existence. One of the most deplorable aspects of the system however, is, that the public are ensnared into the belief, that by placing the whole treatment of the house in the hands of one establishment better work and more harmonious results are sure to follow. This is an insidious fallacy which, those who give it play oftentimes prove to their cost. Given an artist at the head of each department, or, given an artist of wide judgment and cultivated tastes as the sole director of the firm, and under his direction and personal supervision, satisfactory results may confidently be looked for. But in how many instances are either of the conditions named complied with? A further and later development of our increased spread of art knowledge is your "modern Architect." The man "who knows, you know." A contemporary in the early part of the year started a series of questions and elicited a number of replies from representative architects as to the relation which the decorator holds to the architect. The replies in many cases were most instructive, and as might have been expected, were very one-sided in their treatment of the question. The whole race of men concerned in the building trade are made for the glorification and to contribute to the apotheosis of every pretender who writes "architect" over his door. To this end were they born, and if they have a wholesome sense of their privileges, their life should be one continued pæan that they are permitted, in however small a degree, to contribute to the glory of some F.R.I.B.A.

The question was not by any means exhausted in the papers which appeared in our contemporary, and as much remains to be said on behalf of the decorator as was said for the architect by their special pleaders and advocates. One contributor to the papers bluntly asserted that "he regarded the decorator as his servant as much as the bricklayer, the joiner, and the stonemason."

It was instructive to note throughout the whole discussion that the most arrogant claims for this absolute dictatorship came from men whose title to assume such a position is the most open to doubt, and that those architects whose abilities and talents for decorative work are generally acknowledged were the least assertive of their rights and the most generous in their admissions as to the claims for consideration which the decorator possesses. It is all very well for gentlemen to take so high-handed a position as the one named above, and it possibly ministers to a gratifying sense of their own importance, but it is a very unreal and unsatisfactory attitude to assume, and one we should think the least productive of good results. The decorator must, of necessity, during his daily practice, accumulate an amount of experience which belongs to him alone, information and experience which it is impossible for an architect—by the very exigencies of his calling—to gain, except in a limited and superficial degree, and it is therefore the policy of the architect to tap these sources of supply by generously accepting the decorator as his coadjutor instead of treating him in the spirit indicated in the passage we have quoted.

The decorator owes it to himself that he should maintain his claims for consideration in his special province. He is ever ready to recognise and acknowledge the presence and possession of superior judgment and taste in the architect *when he meets with them.* The claim, however, to these qualifications is by no means synonymous with their possession and should not be accepted unquestioned. Every decorator of any lengthened experience has in his time had to contend against the most preposterous pretensions on the part of architects destitute of any real claim to talk on such matters.

We consider it beneficial to any decorator, however wide his experience may be, to be brought in connection with men of independent lines of thought, and with their own ideas of decoration, and nothing but good results, we are sure, can flow from such a

contact. It is only when empty pretension fills the seat of authority and advances large demands to dictate what is right and what is wrong, that we protest. It was in a spirit of generous consideration towards the men who have carried out their works that all great architects have wrought, and only by such a treatment, we are sure, can satisfactory results be attained.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

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CHAPTER IV.—SIGN WRITING (ILLUSTRATED).

IN consequence of the press of matter in connection with the Exhibition and for other reasons, we have not been able to resume our articles on sign writing until the present number. In our last chapter we pointed out how best to commence to practise the art of sign writing. This information was expressly written for the benefit of the young beginner, and starting from this point we will suppose that he can make the straight lines and curves he has been practising fairly well. The next step will be the setting out, spacing, and practising the formation of the letters themselves. These are of so many different kinds or types, although, however, a family likeness runs through the whole, that we shall find it the best plan to practise and become acquainted with those letters upon which the greater part of the different types are founded. The Roman capital letters are the original types upon which all our modern forms of letters are founded, even Old English, Egyptian, large and small, with or without serifs, and all the innumerable modifications and novelties of ornamental letters in common use owe their origin to the Roman capital and small type, in fact, except this form is retained sufficiently to be readable in an ornamental letter, then the object desired will not be attained. We therefore strongly recommend the student to practise the Roman capital and small type, until he has a thorough knowledge of their shape, and can form them with ease and correctness; when this is accomplished he will find no difficulty in forming any other type of letter. There is another reason why he should follow this course, and that is the fact that there is no type of letter as yet invented that approaches the Roman in grace of line, and curve, and beauty of general form, and by practising these, the student will acquire a freedom of hand and a habit of forming his letters—whatever kind he may be writing—with the same freedom and beauty of curve and line as the Roman. This follows naturally, and as a matter of course, because the shape of the Roman being indelibly formed on his mind's eye he will impart even to an ordinary block or sanserif letter some of its grace.

In setting out the letters for practice it will be best to go through the alphabet consecutively time after time, until a thorough knowledge is obtained of the form and proportion of each letter. This plan also facilitates the acquisition of the power to make these letters exactly alike when they occur in the same line. The repetition in practice of each letter is the only way to acquire the necessary skill and knowledge. No one can be considered a good sign writer who is not able to make two copies of the same letter exactly alike, or at all events so alike that the difference between the two could not be discovered except by accurate measurement. This is a very important point and should be constantly kept in view by the student in his practice, for there are many names and words which contain two, three, or more repetitions of the same letter, and nothing looks so bad or unworkmanlike as to see these of different shapes and proportions.

When a sufficient knowledge has been obtained of these letters we may then proceed to set out the letters in the form they might be used on a sign-board. This is a very important part of the sign writer's work, and one in which much experience is required, and also in which many blunders are made, for—except the matter put upon the sign is set out to the best advantage, with a due regard to the most important parts of it, we do not fulfil the purpose for which the sign is used. In all signs, of whatever nature, the name and business should be the most prominent feature, or the name and the name of the article to which we want to call the attention of the public. It is therefore of the greatest importance that due emphasis should be given to these points. Another point to be observed is the spacing of the letters, some letters requiring to be nearer together than others, for instance, our own name—SUTHERLAND. It will be perceived that if the space between the L and the A were the same as that between the H and the E, the space between the two letters would look very much greater than it really is, on account of the slope of the A and the absence of projection of the top of L, consequently we shorten the bottom arm of the L and put it almost close against the bottom of the A, and thus diminish the space between the two Sometimes a flourish is put between the two as thus—L ˇA. This is almost a necessity when using italics, or letters in a slanting position. The top part of the T should also be placed closer to the letters on each side of it, as in the UTH, by which means we lessen the space which necessarily exists in the shape of the letter. When the T and the A come together as here shown TA, then the A may be placed partially under the top arm of the T. As a matter of course, whenever the A is used it must from its shape have a greater space than any other letter except the L. The sign writer can arrange these letters himself, but in printing from type this cannot be done, as each letter occupies a certain space, which cannot be altered, but the inequalities in the spaces are not seen in printing as they are in signs. From what we have said the

student will be able to get over any difficulties of this kind as they occur.

In the setting out of a sign, our attention should be first directed to the quantity of words we have to put upon it, and decide as to the number of lines it will require, and what space we have, also the size of each line of letters and the kind of letters it will be best to use for each line, so as to cause them, by contrast of form, to be easier read and better understood.

Having so decided, we next proceed to mark out the lines between which the letters must be confined. When space will allow it, a better appearance is given to the work if the first or top line is an ellipse, or segment of a circle. This may be formed as follows: first, find the exact centre of the board, top and bottom, and strike a chalk line from both points, then put in a tack, needle point, or a bradawl on the line at the bottom edge of the board, form a loop at the end of the chalk line and put it on the bradawl, then take a piece of pipeclay, wrap the line round this, holding it in the hand, and draw the point of the chalk along on each side of the centre line and a semi-circle will be formed. This will, of course, be rounder or flatter the nearer or more distant the centre point at the bottom of the board is from the line of the circle. It will often happen that the board is not wide enough to enable us to draw this segment of a circle flat enough for our purpose. In this case we must place the sign in such a position that we can fix the centre point below the outside edge, and thus get a longer radius. We next strike the horizontal or straight line for the tops and bottoms of the letters. These being all done we take a piece of pipe chalk and set out the circular line of letters first. In doing this we place a dot on the line at the distance from the edge of the board at which we intend to commence the formation of the first letter; we then place another dot very slight, at the opposite side of the space we think the first letter will occupy, then another dot to mark the distance or space between the first and second letter, and so we proceed with the whole of the letters gauging with our eye the space each separate letter will occupy. We thus see how to place the number of letters on the line and the requisite space between each. If our first dotting does not come near the mark it will at all events give us a tolerably correct idea of the necessary alterations required to place each letter in its proper position, and by going over it again with the dots we shall see exactly where to place each letter before we begin to sketch them in, and thus avoid much useless labour. It is always a bad plan to commence to sketch in the letters without first adopting the above method, except in the case of adepts, as the chances are almost a hundred to one that we find at finish we have to do the whole over again and perhaps again also, and not be satisfactory when done. An experienced sign writer very rarely sketches in his letter just as he intends to finish them, but trusts very much to his pencil in writing. This facility of execution, however, only comes from long experience and constant practice. In the student's case it will be best for him to form his letters in the chalk first before using the pencil and color, he thus insures a better arrangement and form, as any little inaccuracies in the form of the letter will be perceived and rectified in the writing, for we often see errors in our work when going over it again which we were totally blind to when sketching them. This is a general experience. Many eminent artists when they have finished a picture or made a sketch design, will put it away for a time, and not look at it at all, and when they take to it again with the object of finishing it, they find many errors they could not see before, and so it will be best from every point of view for the student to first sketch his letters with the chalk. When this is done to his satisfaction he may proceed to use the pencil and color, and form the letters in outline with the point of the pencil. We say in outline advisedly, because there is no other way in which the student can acquire that freedom of hand, correctness of line, facility of execution, and knowledge of proportion, so requisite to the practical sign writer. By practising this method he will acquire that unhesitating confidence in his strokes which marks the accomplished craftsman. Not only this, but he will acquire the faculty of making all his letters of the same thickness, unerringly, and without measuring them; but, of course, he could not have done this without having previously practised from measured spaces, and thus acquired that *eye knowledge*, if we may use the term, as distinguished from *hand* knowledge, which distinguishes him. The student will find when he has decided upon the thickness of the strokes of his letters, that great help may be had from using a piece of paper having the width of the thick and thin strokes marked upon it as a gauge, these marked on the board with a couple of dots, give us an equality of width without which no lettering can be satisfactory. The spaces between the letters may also be thus marked out, always bearing in mind what we have said in reference to the conjunction of certain letters, such as L and A. Having sketched the letters we outline them with the point of the pencil, and fill up between the lines with a short-haired brush, by which method there is a great saving in time and labour, and also, as we have before said, greater correctness, for if we use the side of the pencil, as many do, to mark the lines with, there is sure to be an unequal pressure, and the hair of the brush swells out, and the consequence is that we do not get a straight even line, but one that will not bear examination, being in and out, to use a homely expression—like a dog's leg—while by using only the point of the pencil, we get a straight even line.

(To be continued.)

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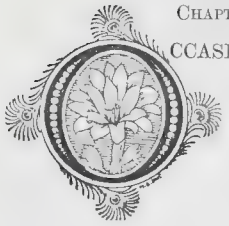
LIME IN THE EYES.—A German paper lately called attention to the efficacy of sugar and water in allaying the pain caused by particles of lime getting into the eyes. Water alone is not by any means so efficacious. There is a chemical action takes place, produced by the combination of the sugar and lime which arrests the corrosive action of the lime. We have simply to mix a little sugar with pure water and apply it to the eye when lime is present, when the pain will immediately be relieved. To those in the habit of using lime for whitewashing, &c., this will be welcome news.

LESSONS IN TILE AND CHINA PAINTING.

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(Continued from page 376.)

CHAPTER III.



OCCASIONALLY, in looking over the fired palette, a particular color will be noticed to be drier or less glossy than the others; this would probably be due to its being a trifle harder, and it is advisable to discard it rather than to trouble to use it either with or without flux, as it is always unsatisfactory to have a harsh color to deal with, and in firing the miscellaneous work of different customers the kilnman is apt to err on the side of an underfire that none of the painting may be lost. But when the colors are soft and glossy and blend together without actually spreading or running into each the effect is much more "liquid" and brilliant.

We have described flux as being a soft fusible glass; and glaze, as a harder glass, and it may have occurred to those who have given the matter some little thought that, flux might be used as a glaze, thereby rendering it possible to do underglaze work in the iron kiln. A mixture of flint or sand, borax, soda, and lead, would form a glaze. A very soft glaze is called a flux. But "flux" would form a very poor glaze, because, on account of its softness it sinks partly into porous pottery, and particularly because soft glazes when cool, crack, or "craze" in numerous crackle lines. This also happens in the case of a hard glaze when the expansion of the glaze and the body is unequal. A very hard glaze is less liable to be affected by the weather, or to scratch. Sometimes much care has to be exercised in the adjustment of the color to the glaze in the case of some kinds of soft porcelain, as it would not do to use hard colors on a soft glaze.

Enamel colors are almost all from metallic oxides, and may be arranged for our purpose as follows:—Reds: Oxide of iron, dichromate of lead, or muriate of manganese. Copper gives a most beautiful red, as may be seen in the case of ruby glass, but its production is a difficult and delicate matter. Ruby glass will be found on examination to be stained or flashed on one side only, and if in the process the heat be exceeded or prolonged, or from other causes, the copper absorbs an excess of oxygen and turns green. At present, so far as is generally known, no permanent red of this kind has been produced, though in rare instances, a copper green has fired red or in patches, and this seems to show that it is possible to discover by chemical research the means of preparing a permanent copper red. Rose colors, carmine, and purples are obtained from gold and tin (precipitate of cassius), varied by the addition of a little silver. There is a tendency on the part of these colors to turn bluish in the thin tints, particularly when overfired. In choosing them from the fired palette look very closely, and this tendency will be perceived; choose therefore the reddest rose or purple. Common rose colors are sometimes very blue; on account of this tendency; it is therefore easy to produce various lilac or sour purple shades by the addition of a little blue. Browns are formed from iron, modified by various degrees of combination with cobalt and zinc, also from manganese. Yellows and oranges are principally from antimony, tin, lead, and iron. Greens are obtained from copper or from chromium, varied by cobalt, tin, and alumina. Blacks are of cobalt and iron, and are strengthened by the addition of copper or manganese. White is principally of tin. The blues are almost all from cobalt, which by admixture with copper, iron, zinc, and tin, gives many shades of blue, green, turquoise, &c. Some of these are easy and some difficult to work. The bright light blues work pretty freely. Some of the dark blues seem to have more of the quality of the rose colors; they work less freely and are often a little harder and less glossy than other colors. Turquoise blue is a color having the milky blue-green hue of the stone, after which it is named; it is rather troublesome to lay on, but it is a bright, pretty color, useful for borders and backgrounds; it is not used for mixing purposes. There are many shades of brown. A clear red brown, which is very useful for general purposes, we can best describe as being somewhat like the artists' colorman's light red but of a rather more orange hue, it will be seen on most palettes of color and is generally called clear brown, or red brown. This is a color much required in painting flesh, either for flat tints in decorative work or for blending into the other colors used for flesh, and is of the utmost use as it mixes agreeably with and modifies other colors which are more raw. There are various oranges and yellows which intermix well, excepting an opaque orange which is not used for mixing, nor is it so good for general work as an ordinary transparent orange. There is also a yellow which is rather objectionable for general work—that is, a yellow from silver; this is a bright color, good for bright touches but apt to predominate when mixed with other colors, and is rather strong and raw. The greens all fire as they look, or with but little change. The same may be said of the blacks, of which there are two sorts usually met with, one ordinary black useful for mixing, and another black which is much more intense, better used by itself when an exceptionally strong background or band of black is required.

With regard to enamel white, it is perhaps better to do without it as much as possible; there are not many whites which are satisfactory when fired at a low temperature, as the addition of sufficient soft flux detracts from their opacity. Gold is applied to china in a state of amalgam, ground fine with a metallic flux. The gold oxide is first ground for a few hours with quicksilver and a small quantity of silver; it is then ground together with the flux necessary to fix it, and is ready for use. It is sold ready prepared in this way at the rate of about five shillings per pennyweight, and until fired presents the appearance of a jet black powder.. Silver is sometimes used to decorate china but does not seem to be very permanent. A composition called

"raised paste" for gold is used to raise or prepare the surface to be gilded. Small touches of gold, or lines round plaques, need not be prepared in this way, but when it is desired that the gold shall be in raised lines or a large surface is to be covered, the raised paste is used, as it give an appearance of greater solidity to the gold; sometimes a flat coating of this composition is laid, on which a pattern in raised lines is traced with a fine brush. A firing is necessary to fix the paste before the gold is laid on. The metals mostly used on pottery are gold, silver, and sometimes platina and copper.

Many beautiful lustres are obtained by laying various metals very thinly on the surface of the piece. Some are unmixed with flux, and are simply laid on with the brush, and when fired, adhere to the glaze, and shine with a bright metallic lustre, the lustre being usually produced by burning some animal or vegetable substance in the kiln during the firing. Many ingredients are used, and the processes for producing the various lustres are very difficult, and are not always successful, even in professional hands. All enamels change a little in the firing; some fire away, and others increase slightly in intensity, and when a strong color, which does not fire away is mixed with a weaker one, the tint changes in the firing. Colors which are laid on thickly usually fire deeper in tone, as they are a little opaque and filmy till fired. When the glassy part of the colors fuse they are more transparent, and the color develops. It is necessary to make a test or trial palette. A six-inch tile answers this purpose. The colors should be laid on evenly in small squares, graduating from dark to light in systematic order, and numbered, to avoid confusion This should be done carefully, and the strength of each color remembered as nearly as possible. It will be found that this takes some little time, as the brush should be carefully cleansed for each fresh color, and it is well that each color be laid on as flat as possible, as a much more satisfactory idea of the tint is afterwards gained than if the color is in streaks and ridges. One has a natural inclination to put a few hurried touches of colour, which are afterwards only sufficient to give a partial idea of their development. In saying that iron reds will not mix with other colors, we mean that although a large proportion of red mixed with a very little of another color will sometimes stand good, if fired to a nicety, yet, as a rule, it is quite uncertain how much such a mixture will vary, and the tint produced be muddy and patchy. A mixture of equal parts of red and blue would result in the total disappearance of the red and the brightness of the blue would be sullied. Whilst engaged at a piece of work, it is often very desirable to try how a certain color or mixture of colors would fire without making the experiment on the work in hand, or sending to and waiting for the return of a trial from the kiln. In this case there is a simple expedient which may be resorted to, and that is to put a small piece of tile on which is a touch of the color to be tried in a clear place in the fire; in a few minutes it should be red-hot, when it can be removed and allowed to cool. It is better still to bend a small piece of tin to a tubular form, and place it between the bars in such a way as to form a miniature muffle, and so shield the trial from falling ash. Occasionally the color is blackened or spoiled by the fumes of the fire, but if fired quickly in a clear fire the result is usually sufficiently successful to give a fair idea of the color obtainable. Observe the precaution to make the tile very hot before putting it right into the fire, otherwise the evaporating fumes will ignite and blacken the color. During the firing of a color it is interesting to observe the changes which take place; first, the more volatile portion of the medium evaporates in a disagreeable smelling vapour and the remaining portion scorches and turns brown, but as the heat increases this also burns away. Next, the color at the hottest corner begins to fuse, and in the action of fusion seethes or rises in tiny bubbles, especially where the color is on thick; as the heat increases, the color, completely fusing, settles down in an even glossy surface, and a piece of wire held closely over it will be seen reflected there. If the trial be now suddenly removed from the fire, it will be noticed in most cases that the color is peculiar or the tint unlike what it should be, but as it becomes perfectly cool it attains its proper hue. Turquoise blue and enamel white, in particular, rise in bubbles in the firing, as we have described. The turquoise color is a white body stained with blue oxides, and consequently presents the same characteristics as the white; but it is a little more fusible, as it bears the addition of a trifle more flux. The use of too much medium will cause a somewhat similar effect; but when other colors are underfired they are usually less glossy, whereas the white seems fairly glossy when underfired, but remains raised in ridges and bubbles, the cause of which it is necessary to know.

OUR ILLUSTRATIONS.



E give to our subscribers this month four pages of different types of letters, comprised in 11 alphabets, all of which will be found of great use in the study and practice of the art of sign writing.

No. 4 Sheet of Letters.

In sketching out these letters we have not confined ourselves strictly to the types of letters used by printers, but have kept in view the fact, that, although very much of the modern printing type now used is of a character which may be used with but little alteration by the sign writer, yet, as a rule, they are not so used, but that each sign writer uses his own interpretation of them. This can hardly be avoided, as each writer generally imports into his letters some characteristic of form which is peculiar to himself; we know it to be an indisputable fact, that every man who can write with the pen and ink, stamps his own individuality upon

his writing, being his style of interpreting the commonly received type of letters, and so it is with sign writing, although perhaps in a lesser degree. Consequently, we have here drawn what we ourselves have found by practical experience to be eminently useful letters for the sign writer's daily wants.

It will be observed that in these two sheets of letters we have dealt principally with types of letters which are in a great measure ornamental, and suitable either for ordinary sign writing or for use in illuminating manuscripts, and for church work. These distinctions we shall point out in our description of *each* alphabet. Our next sheet of letters will illustrate the various forms of the Roman type, large and small, italics, Old English, block letter, &c., &c.; as was intimated in the August number we shall include in our series of illustrations of sign writing, tablets, heraldic emblems, ribbons and scrolls for mottos and inscriptions, the royal coat of arms, hands pointing, &c., &c., forming a collection of designs which will be found of great use.

The alphabet No. 1 is an example of the ordinary plain block letter, as sign writers name it, but the type founders know it by several names, English, Doric, Celtic, &c., while others call it sanserif (*i.e.*, without serif), that is, the projections at top and bottom we see in the Roman and Egyptian letters. Here we give it as an example of condensed or compressed letters. In cases where the space at our command is limited, these letters will be found very useful because they may be put much closer together than any other kind and yet read well, the fact of all the parts being of equal thickness enables us to see them more distinctly, and read them more easily than if they were of unequal thickness, as in the Roman capital.

The alphabet No. 2 is, of course, the small sanserif, or block letter, and is one of the most readable of its class, being, as No. 1, of equal thickness throughout. Of course these two alphabets will be still plainer and more readable when painted in their proper proportions as regards width, that is, uncompressed.

No. 3 is what painters call Egyptian block compressed, and is also a very useful and readable letter, we have not given the smaller type corresponding with this letter, because the No. 2 alphabet only requires the serifs adding to make them of the exact shape. It will be at once evident that this alphabet cannot be compressed into the same space as No. 1 and be at the same time of equal thickness and height, because of the projections of the serifs on each letter; consequently to place them nearest to each other the parts of the letter are of two thicknesses, which gives us a little more space to work upon. In our February issue will be found raised and shaded examples of this letter in its full proportions.

Alphabet No. 4 shows an example of a letter which looks well, when properly painted, either in gold upon black, or in color alone, and although all the principal strokes of the letter are perfectly straight, yet the curves at the ends give it a graceful and ornamental appearance. There is a form of letter called the Clarendon, which have serifs like the Egyptian, but unlike the latter serifs are rounded at the angles, and the latter is composed of thick and comparatively thin lines, after the Roman type. Now if we draw this letter correctly and then split the tops and bottoms with lines coming in opposite directions, we shall form the letter of the alphabet No. 4, just as in the example here shown. There is no difficulty in doing it, the path is as simple as possible.

No. 5 shows the small type suitable to go with No. 4.

No. 6 alphabet is also a type of letter of a useful character, one which looks well, is graceful in form, and may be made highly ornamental by adding either square or round centres to them, or notching the tops and bottoms as shown in the example, which is part plain and part notched. There are also six of the small letters to accompany this alphabet.

Our next alphabet, No. 7, has a somewhat mediæval character, although it is really formed or based upon the sanserif or plain block letter, with a few slight alterations in form, as in the M and N, and even these might be made in the original form of the block. The additions which alter the character of the letter are first, the small fine pointed serifs and tops and bottoms, and second, the slight scrolls to the A, C, E, and M. The body of the letter is of one uniform thickness, and it is surprising how the style of the letter is changed by these slight additions. This is a type of letter much in use at present for all sorts of purposes; this may be accounted for from the fact that it admits of being improved or added to by a skilful draughtsman without at all injuring its readableness.

We have filled up the space on the bottom line with three letters which are formed on just the opposite lines as regards the thick and thin lines of ordinary type; printers call them Italian, sign writers have no name for them, they are not an unreadable letter but are not often used.

Letter Sheet No. 5.

We come now (alphabet No. 8) to a type of letter founded upon the Roman capital which in its plain form—without any ornament—is called by the printers *old face* mediæval type and Ionic. Whatever its proper name, there is no doubt but that it is an old form of letter, one that has been much used in old printed books and in modern times for illuminating and for inscriptions in churches; with the addition of the curled lines it has a highly ornamental look and may be used as illuminated capitals in red or gold outline, with the Alphabet No. 9, in black, for lettering church tablets, or inscriptions. No. 10 is an alphabet of letters of the same type as No. 8, different in a slight degree in the actual form of the letter, and filled up with ornament for illuminating.

The student will see that there is in these letters a fine line placed at a certain distance from the body of the letter, and the ornament is sketched inside this line: this is not an absolutely necessary condition, but is used in order to prevent the ornament impinging upon the body of the letter, and thus causing confusion and any interference the one with the other. We have sketched four different

ornaments for the filling between the lines, but it will be understood that only one of these would be used in a word or line of letters. This is an admirable letter for texts and inscriptions in churches, especially to paint in situations far away from the eye. It is a most readable letter, and looks best, we think, when slightly compressed, that is, made a little higher in proportion than its width, a narrow letter; but whether compressed or expanded, it is the best letter we know for the purposes above indicated and, with a red or blue line added to a gold, black, or chocolate letter, on a cream color ground, it will harmonise well with almost any combination of color in its surroundings.

Of course there is a variety of ornament which may be used for the filling in of the letters. A simple line is often used alone, with the effect of just relieving the plainness of the letter, and adding beauty to it.

Before we conclude the subject of sign writing we shall give a few examples of illuminated capitals in colors as a guide in church decoration.

The small letter alphabet, No. 11, is given to accompany No. 10, showing the appropriate filling.

The alphabet, No 12, is strictly of a mediæval character, and while it is fairly readable to tolerably well-informed persons, the majority of people would find a difficulty in deciphering a word written in this type. Consequently, its use is limited to church work, or illuminated manuscripts, or as capital letters only. The small alphabet, No. 11, may be used with it, which will render the whole of the text more readable. In contradistinction to many architects and church decorators, we hold the opinion that texts, inscriptions, and all letters used in churches should, while retaining a distinctive character, be plainly readable by any one who can read—else, why put them there? It is generally supposed that these things are not for the purpose of mere decoration only, but written to impress upon the worshippers some particular truth or information for their guidance and enlightenment, which being constantly before them may be impressed upon their minds and remembered. This, we opine, is the sole aim and object of those who have used these texts and inscriptions both in ancient and modern times. But if we write them up in a type of letter that can only be read by the learned, then we wholly defeat the purpose we have in view.

Our ecclesiastical decorators are too much in the habit of stultifying themselves by using these unreadable letters, simply because the same letters were used in certain manuscripts, and certain churches, at a certain period, and they consider any departure from this plan as a move in the wrong direction, forgetting, or, if not forgetting, ignoring, the fact that, at the time when these letters were written and used in churches, the mass of the people who worshipped in them were completely ignorant of both reading and writing, and that in those far-off days it was only the learned, who were few and far between, who could interpret or read these texts or inscriptions; consequently, it was only for their information and use that they were written. But in these latter days, when every one, almost, can both read and write, the foolishness of putting up texts in a type of letter which has become obsolete from want of use, and which cannot be easily read, is self-evident, and utterly defeats the object in view in exhibiting them.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 381.)

CHAPTER XXI.—MARBLES AND MARBLING.

PYRENEAN GREEN.

THIS marble, as it name implies, is found in the Pyrenean mountains. Like most other green marbles, the supply is not equal to the demand. As a rule green marbles owe their color to the presence of copper, and the brighter the green, the greater amount of copper there is present. Malachite, the very brightest of green marbles is found in copper mines, and is to a large extent composed of oxidised copper ore. The name Pyrenean Green Marble is applied to several varieties of marble got from different quarries situate in the mountains; some examples having red intermingled with the green, while others have not a particle of red, but have a preponderance of black. Some of them are very near the same character and color as Egyptian green. So we see that in this marble as in all others (except pure statuary), that are procured from different quarries, differences to a certain extent both in form and color. Yet in all of them certain characteristics are retained which enables us to see at once to what class of marbles they belong.

In painting the patterns of this marble we have sent out, we have—in order that a harmonious combination might be formed with the six patterns composing the set—not put any red into it, as we get red enough with the Rouge Roi.

There are two methods whereby this marble can be imitated, as is the case with most marbles, the one by opening out the veins with turps on a white ground, and the other by putting in the green veins with a feather and pencil on a black ground.

In working on this latter system, we prepare the work by laying a dead black ground. We prefer that this should be distemper, that is, mixed with just sufficient strength of glue size to bind the black and leave it absorbent. Our reason for using a distemper ground is that, when we put the colour upon it with the feather, it will retain its firmness and sharpness, and not run the one into the other as it would upon a non-absorbent ground, such as oil black or even quick black. If we work on oil black there is no key to hold the color as we put it on, and as a natural consequence it runs out of all form and so we lose our labour. Another advantage in using a distemper ground is the fact

that we can paint over, say a chimney-piece with it, and in a little while it will be ready for work and can be finished off at once. In working we shall require some good feathers, the best are from the goose's wing, and we use sometimes the side of it and at others the extreme end; it is often an advantage to take off the extreme point of the feather, which leaves a forked end that is of great use in putting in fine veins. We mix up various shades of green with white, the Brunswick greens answer the purpose. These may be put into shallow pots wide enough to allow us to dip the feather into them without bending or breaking it. When these are ready we dip the feather in the the darkest green, and go all over the work with it in one direction, not covering the whole, but leaving patches here and there with but little green upon them. When this is done we use the next lighter shade of green and go over the work again, but this time in a somewhat contrary direction to the previous green. If this is properly done it will leave a large number of irregular-shaped portions of the black ground showing, which will begin to assume the character of the marble. We now use a still lighter shade of green and feather it on in the same direction as the first or dark green, but this must be done intelligently, that is to say, that we must aim to give to the previous feather work the peculiar run of vein which characterises the marble we are imitating. When this is done we follow on with pure white, using the feather lightly and putting in some fine veins with it, and using a large pencil or swan quill to put in the larger veins which give the distinguishing feature of the marble. Now the student will find that in putting in the white—which should be used both thin and of a medium thickness—it will soften and partially sink into the previous green put on the work, and thus we get a variety of shades of green, some solid and others transparent, crossing and recrossing each other, leaving large and small patches of black in amongst them. It may happen that there are portions of the work in which there are none of these black patches left; we should in this case put them in with a fitch and black.

When the work is dry we proceed to glaze it over, in order to enrich, subdue, and modify the previous feather work, and in doing this we keep in view the run of the vein, and by using different strengths of the glazing color we obscure some parts and thus give prominence to others, and so produce an exact imitation. The glazing color to be used for this marble may be made with Prussian blue and raw sienna, or Prussian blue and yellow lake, but as the latter is a very fugitive color we do not advise its use. The Brunswick greens used thin in oil answer pretty well, but are not so transparent as the first. It will be seen that parts of the larger veins of Pyrenean green marble are partially white, but not continuously so, but part white and part a very light green, just as if a very light wash of green were put upon the white, leaving portions of it pure white, and this is exactly the plan we adopt in the imitation. We may either glaze on these white veins, and then wipe out parts of them as seen in the real marble and in the patterns we have sent out, or the green may be glazed upon them, leaving portions of them white. The degree of brightness of the green used in glazing must depend upon the taste of the artist, but we prefer that it should not be too bright—a quiet subdued color serves best to produce a good imitation. In some situations and combinations of color the green will require to be brighter than in others.

The second method of imitating this marble is done by opening out the veins on a white ground, and we have produced some excellent imitations by this method, and for some purposes, especially in imitation inlaying of marbles it has advantages over the other method, as a variety of green marbles, such as Malachite, may be done off the same ground as Sienna, Italian Pink, &c., without laying a separate ground for them. This fact we shall make more evident when we come to treat of inlaid marbles. The opening-out process is done as follows:—On a white ground we rub in a dark oil color very stiff, and rubbed bare, made from Brunswick green and black. We then use a feather and turpentine, and go over the work with it in one direction, and while it is wet with the turps we dab with a rag, which takes off the body of green irregularly, leaving sufficient on to form a variety of shades and marks and hues of green. We then take a piece of crumpled paper, and dip this into turps, and break the previous color in places, dabbing it with the rag as before. We now take a fitch or swan quill pencil, and open out the large veins which run across the slab, and have a clean rag and wipe out parts of these large veins, leaving them white. We now leave it until it is dry, and then glaze it over as before described, putting in with the fitch or pencil the various shades of transparent green, and also the small black patches. This, if properly done, will cut up the marble into the exact form and run of the real stone. As will be readily seen the glazing in both these methods is of the greatest importance to the success of the work in obtaining that depth and transparency, and variety of tints of green required. It gives us also an opportunity for introducing various shades of color that could not be done any other way. For instance, we can now and then put in a little blue glaze which makes an effective contrast to the other greens, and improves the effect of each. We do the same by introducing a little lake or other colors, all of which add to the beauty of the imitation, while at the same time preserving the true character of the marble. (*To be continued.*)

MARBLE PATTERNS.

About the 1st of October the Editor of the *Journal of Decorative Art* will, all being well, have a few sets of marble patterns for disposal of the same kind as those already supplied—viz., Italian Pink and Sienna, 26 by 20, including frame, and Rouge Roi, Pyrenean Green, Bardiglio, and Breschia Ficario, these latter being 26 by 11, including frame, done on academy boards. We have decided to supply the two first-named staircase marbles, 26 by 20, separate from the others when desired, and as they are two of the most important marbles used we wish to give those who are not prepared to, or who do not require the whole set, an opportunity of acquiring these two. For prices apply to the head office, 15, St. Ann Street, Manchester.

SCOTCH NOTES.

I HAVE to congratulate you, most august Editor, on your August number. The Durescolor Staircase is being praised by all who see it.

You would observe that at Wimbledon lately an English volunteer declared the Scotch could shout as well as shoot, and it is quite evident they can also paint a bit, although the fact cannot be denied that McCulloch and Gow's London training has had a great deal to do with their success.

As promised, I now give you a few particulars regarding the Central Station Hotel, Glasgow. It is of vast size, there being no fewer than 550 apartments within the building, giving accommodation for over 420 guests and 170 servants and officials. The grand dining hall is on the first floor at the south end of the building; its interior, designed in the old baronial style, has a rich and imposing appearance. Its dimensions are 90 feet long, 40 feet wide, and 29 feet high. The ceiling is panelled in plaster, divided into sections by oak beams; the panels are painted a soft orange tint with colored lines; the stiles are a deep creamy green with line in color, the mouldings being darker, with gold bead on same. The upper walls are hung with Mr. W. Scott Morton's patent modelled canvas, better known as Tynecastle Tapestry. The design, which was specially prepared for this room, is a floral Italian, the ornament of which is gilded and toned down to the color of old gold, the background being picked out in shades of deep red. This design is surmounted by a large fruit and flower festooned frieze, the fruit and ornaments of which are also in gold, picked out in shades of dull green. The frieze bears between each festoon the arms and monogram of the Railway Co. The lower walls are lined to a height of 18 feet with panelled oak. In the centre of the hall are two arches supported on columns of grey and white marble, which discordant coloring rather spoils the effect of the decorations. The drawing-room is small but neat, being about 40 feet by 20 feet. The ceiling, like most of the ceilings of the public rooms, is divided into sections by heavy beams and trusses of walnut, which for a drawing-room has the effect of heaviness; but this has been successfully got over by the introduction of strong and effective coloring on the plaster work of ceiling, which has been put into panels of rich olive brown, on which the Scotch thistle is diapered over in gold. The stile round panels is of tapestry gilded, and picked in with a soft olive tint, with black and gold moulding binding same. The upper walls are also of tapestry, the design being in the Queen Anne style, and the blending of transparent colors and gold on the fruit and flowers is very pleasing. The frieze represents a landscape, and is hand painted in colors to suit the wall tapestry. The furniture is also by Mr. Morton, and is rich and unique in design. These two rooms were not in the painter's contract, it having been arranged by the architects, Messrs. Anderson and Brown, of Edinburgh, to put the decorating and furnishing of them entirely into the hands of Mr. Morton, whose abilities as a designer of art furniture, curtain fabrics, &c., are well known. The decorative work was executed for Mr. Morton by Mr. James Clark, decorator, Edinburgh. We come now to the works executed by the contractors for the hotel, viz., Messrs. John Orr and Co., decorators, Wellington Street, Glasgow. The most richly decorated rooms in the building are the ladies' coffee-room and ladies' drawing-room. The ceiling of the ladies' coffee-room is in six panels, in which are represented, by female figures, music, painting, sculpture, architecture, and also the Caledonian Railway Company's arms in color and gold. The walls are hung with flock of fine design, flatted and etched with gold, the whole being in harmony with the richly panelled woodwork of doors and dado of the apartment. The ceiling of the ladies' drawing-room is diapered with the arms and monogram of the Company; the frieze is laid off into panels with deep blue ground, on which are represented various phases of animal life, in monotone; the stiles are buff with festoon ornament and lines; the upper walls are covered with flock paper, finished in shades of yellowish green and dull gold to harmonise with furniture; the lower walls, about eight feet high, are panelled oak and French polished. The writing-room is finished in the same style, but much less elaborately. The reading-room is a richly decorated apartment, the ceiling being panelled with pine timber mouldings, dull polished, and the panels filled in with rich scroll and other ornaments, principally in gold color and gold. The walls are hung with flock and finished in soft brown and gold, in keeping with the wood. The music-room, a very fine apartment, is treated similarly to the reading-room. The sitting-rooms and bedrooms are plainly finished, the ceilings being Durescoed, the woodwork, where not solid oak or mahogany, stained and varnished, and walls hung with paper specially designed. The whole of the paperhangings, amounting to about 5,000 pieces, were manufactured by Messrs. Brown and McLaren, paper stainers, Glasgow. The grand staircase is of great dimensions, and is one of the finest in Europe; the ceilings and soffits are of solid oak; the walls are hung with a bold and effective paper specially designed by Messrs. Orr, representing the arms of the company—this is only intended as a temporary finish until the plaster is thoroughly dry, but it has a good effect, and the coloring is well suited to the surroundings. The stair steps are of white marble, and of great breadth. The corridor leading to public rooms is also papered with the above-named paper, but all the other corridors and staircases, &c., measuring about 20,000 square yards, have been temporarily finished plain in Duresco of a salmon tint, which has a clean and cheerful appearance. Messrs. Orr are to be congratulated for the efficient way in which they have carried through so important a job, lasting over twelve months.

Disguised as a quiet respectable citizen of St. Mungo, I went one evening recently to see the Royal Princesses' Theatre, Glasgow, which has just been thoroughly overhauled and redecorated by Mr. J. F. Edgar. The work has been executed in a bold, effective style, exactly suited to the design of the building and the purpose for which it is used. The main ceiling is formed into large panels, filled in with deep blue merging into clouds, and diapered over with gold stars; smaller panels are introduced between these, having a deep red ground, on which is painted conventional vases and flowers; the stiles are a warm buff, and a broad band of scroll ornament binds the whole ceiling. The coved ceiling is laid in with a light warm tone, bordered with leaves in the form of festoons, which gives a light and airy effect. The front of the dress-circle is of a deep cream color and richly gilded; the panels of same are filled in with blue quilted satin, and have a very pleasing effect. The proscenium is treated with gold color and gold, and the large panels at sides of same are filled in with scroll ornament in bold relief. The appearance of the house when lighted up is rich and pleasing. *The whole contract has been carried out under the personal superintendence of Mr. Edgar, assisted by Mr. Chas. S. Finlay.

*Messrs. George Dobie and Son, decorators, Edinburgh, have just completed the re-decoration of the Gaiety Theatre, Glasgow. The house looked brighter than I have ever seen it before, the decorations being in good taste, and the artistic blending of colors everything that could be wished. The work was pushed through expeditiously, only one week being required to complete the whole. Messrs. Dobie's effective style is particularly suited for public buildings, and they are much employed for that class of work, amongst other places we have seen which they have done are, the Folly, Glasgow, and the Gaiety, Edinburgh. And now, Mr. Editor, having disposed of a hotel and two theatres, we will wind up by going to church.

Your subscribers, Messrs. Hendry and McCreath, Govan, have just finished Dean Park Parish Church. *The church is a handsome gothic building, recently built, and is seated for over 3,000. The coloring is light and cheerful, the ceiling being pale blue and walls a warm buff; an 18 inch frieze is stencilled and lined in three shades of color, and the circular panels between arches are skilfully treated with ornament in keeping with the architecture of the building. The chancel is flatted pale blue and stencilled with an all-over pattern, the effect of the whole being very harmonious, although there is no organ in the church. The ten commandments fill two ornamental panels on the wall on each side of the pulpit. I would strongly advise "brother brushes" to see this church, though it were only for the purpose of reading the Law of Moses, for I believe it would throw light on many points which our trade, as a rule, are in the dark about.

PETER PALETTEKNIFE.

* We understand that the above jobs have been executed in Charlton White.—ED. *J. of D. A.*

WHITE PIGMENTS.

General Names.	Chemical Names and Composition.	Artistic Qualities.	Conditions of Permanency.	Conditions of Non-Permanency.	General Adulterations.	Test for Purity and Nature of Adulterants.	Remarks.
Baryta or Constant White, also called Permanent White.	Sulphate of Barium, or Baric Sulphate, also called Heavy-spar when found native. Barium, 137 equivalents; Sulphur, 32 equivalents; Oxygen, 64 equivalents (this is the neutral sulphate). Constant White occasionally consists of carbonate and sulphate of Barium. Sometimes this white is not entirely freed from sulphuric acid (which contains the acid sulphate of Barium) and has in addition 2 equivalents of hydrogen.	Is a beautiful, dense, though bluish-tinted white pigment in body, of good use for fresco, silicates, and water color painting, less a darker tone when being used than when dry. Gum destroys or mars the whiteness.	Perfectly permanent under all conditions. SH_2 does not affect its color, nor does any pigment containing sulphur, since the sulphide of barium which might be formed is also white, strong light, darkness, oxygen, lead, or iron have no injurious action on it.	The acid sulphate of barium is semi-stable, since the free acid is apt to be injurious when brought into contact with pigments affected by acids or on some of the vehicles used.	Sometimes lead is added to give it body. Zinc also to give it whiteness.	If pure no reaction will be shown by adding a little solution of SH_2 to the pigment. If lead be present SH_2 will give a black precipitate. To test for the presence of other metals, use the tests given under white lead. To detect free sulphuric acid add a few fragments of sugar to a largely diluted solution of the pigment, and evaporate to dryness; a black charred residue indicates free sulphuric acid. Much of the free acid may be removed by washing the white with distilled water.	The amorphous state of the sulphate is the best for the palette, because in this state its covering power is best. It is the best white to use with sulphides, lead, or iron pigments. The neutral sulphate should be tested for free sulphuric acid, since if present its permanency is weakened.
Blanc D'Argent or Silver White or French White.	Is a white of Lead.	Has less body than flake white.	Similar to white lead.	Possesses all the deleterious characteristics of white lead.	Chalk and bark sulphate.	As given under white lead.	Sometimes preferred by artists as a white.
Flake White, when levigated called Body White.	Oxydised carbonate of lead.	Identical under every circumstance with white lead or other lead carbonates. Has the best body of all white leads.	Very according to mode of preparation.	See White Lead.	Sometimes not entirely freed from the acid.	See white lead.	Called by the colourman common white. It owes its flaky character to the modes of preparation.
White Lead or Ceruse, Cremnitz, Dutch, Flemish, Hamburg, Venetian, or Roman White.	These are all carbonates of hexavalent basic carbonates. Cremnitz is usually pure white lead. Dutch white 24 per cent of white lead, and 76 per cent of baric sulphate. If they contain hydrate of lead the components of water are present. Hamburg white is a mixture of 2 parts heavy-spar and lead white. Venetian white, sulphate of Barium and carbonate of lead in equal parts.	good body. The body is better in proportion as the carbonate is white and heavier. It is easy to work, is very opaque, and imparts that quality to pigments compounded with it. Massicot, Red and Orange leads, Oppiment or King's Yellow, and Patent Yellow are injured by white lead. Cremnitz white is the whitest of white leads.	When mixed with zinc or baryte white it is semi-transparent; strong light will sometimes restore the brightness of tarnished white lead, so also will hydroxyl. Linton says it compounds with ultramarine, red cadmium, orange lead, yellow and orange chromes, yellow, orange and red cadmiums, carmine, the ochres, and Indian red, vitrian, and other oxides of chromium.	Much oil or varnish dissolves it partly by abstracting oxygen, and partly by becoming brown themselves. Decomposed by sulphides or SH_2, it destroys the tints formed by it with white lead, and also with hydroxyl. Linton says it compounds with ultramarine, red cadmium, orange leads, yellow and orange chromes, yellow, orange and red cadmiums, carmine, the ochres, and Indian red, vitrian, and other oxides of chromium. Is not to be used in fresco, distemper, nor crayon, very fugitive; hydrated oxide of lead gives white lead less covering power, and it turns to a brownish hue.	Whitening, sulphate of barium, sulphate of lead, carbonate of lime, gypsum, oxide of lead, carbonate of lime. These substances are mixed to the drying of white lead, and lessen its body and brightness, and darken the oil vehicle.	If pure it is entirely dissolved by nitric or acetic acid, either of which leaves a clear liquid. Distinguished from other white pigments when acted on by SH_2 or a sulphide by the formation of a black sulphide of lead. To test for whitening, add dilute nitric acid, boil in test tube, and then add hydrochloric acid, filter, and to filtrate add ammonic oxalate. A white deposit indicates whitening. To test for barium salt, employ blowpipe test, green flame. A green coloration of the flame indicates barium. With the same test a red coloration indicates calcium, as gypsum, or sulphate of lime, or plaster of Paris.	The cause why white lead works easily is owing, to its saponifying with oil which forms linoleate of lead and soap thus causing the pellicle of oil to be almost destroyed as a protective coating, and it parts with some of its oxygen to the oil, whereby the latter becomes dry and hard, thus leaving the pellicle of lead more open to action of sulphurous fumes, or pigments possessing sulphur, to be turned into the black sulphide of lead.
Zinc White or Chinese White.	Zincic oxide or oxide of zinc. 65 equivalents of zinc to 16 of oxygen, or else the anhydrous oxide, the hydrate oxide, or hydrated basic carbonate.	Wants body in oil, but best possible white in water color. A bad dryer, although used as a siccative for oils.	Thoroughly permanent under all conditions. Does not form a soap with oils and hence retains its purity, and is not fugacious like white lead. It is most durable in stippling painting, and forms chemical compounds with potash and silicon.		Carbonate of lead, and sometimes carbonate of lime, kaolin and starch.	If pure it is perfectly soluble in hydrochloric acid, and does not effervesce during solution, like white lead. To detect lead add SH_2, and if salts of the metal be present a black precipitate is formed. The borax bead with the blowpipe test will be purple if manganese be present, if iron is added, it will be of a fine blue magnetic powder when the pigment is heated in charcoal with carbonate of soda.	A good pigment when well prepared. Chinese white replaces zinc white in water colors.

ART NOTES.

We have received from Messrs. Reeves and Son a copy of "The Artists' Table of Pigments," by H. C. Standage. Mr. Standage has an acknowledged position as a public writer on matters connected with decoration, and especially the use and application of color thereto, and the work before us is calculated to augment Mr. Standage's reputation as an authority on such questions. The work is published at one shilling, and should be in the hands of all painters and decorators. The tables are arranged in a simple and systematic form and are only printed on one side of the paper, an arrangement which makes the sheets available for pasting up in the workshop or studio. We give a copy of the table of white pigments, and as the same system is adopted throughout the book our readers will at once perceive how exhaustive and complete is Mr. Standage's work. We wish for the book the wide circulation it so thoroughly deserves.

Just now Manchester is adding to her educational resources in a marked manner. Last month she acquired an Art Gallery, this month she becomes possessed of a Technical School. Both institutions start with the good wishes of all patriotic citizens; both are needed, and each has its special work to accomplish. We trust they will each fulfil the most ardent wishes of the promoters, and their influence will be felt in the one case in a wider distribution of the refining influences of art, and in the other in a more intelligent grasp of the principles that enter into all the crafts and callings of our daily life.

The opening of the Technical School is definitely arranged for Thursday, the 27th September. Mr. Bernhard Samuelson, M.P., Chairman of the Royal Commission on Technical Education, will distribute the Prizes earned by the Students of the Institution, at the May examination (including the Whitworth Royal, and Local Scholarships), and will deliver the address and formally open the school. It is expected that nearly, if not quite, the whole of Mr. Samuelson's colleagues on the Commission will be present on the occasion. The structural alterations in the building are advancing rapidly, and the staff of science and technical teachers are busily engaged in preparing diagrams and apparatus for their work. The departments of Mechanical Engineering (which includes large machine-shop, smithy, &c.), Building Construction, Bleaching, Dyeing, and Printing, Weaving and Designing, will be special features of the school. A Metallurgical Laboratory, complete with wind and muffle furnaces, is now ready for work. It is hoped that students beyond school age will present themselves in sufficient numbers to constitute good day classes in Science and Technology. The elder pupils of the Boys' Day Classes will also receive Scientific and Technical teaching, but the great work of the Institution will be in the evenings, when it is hoped it will be full of students. The prospectus of classes embraces a wide range of subjects—Scientific, Technical, and Commercial. The Teaching Staff is also large and comprises gentlemen of great experience in their various branches of work. In the meantime any further information may be obtained from Mr. J. H. Reynolds, the Secretary.

The Building in Mosley Street, hitherto known as the "Royal Institution," but henceforth as the "Art Gallery," is one that merits more than a passing notice. In the first place, it is the work of Sir Charles Barry, which is of itself a sufficient claim to our consideration; apart from its authorship, however, it is intrinsically meritorious, its lines and proportions being well preserved and possessing great dignity and quiet beauty. The dirt and soot of the Manchester atmosphere has done its best to hide all the beauties of the structure, but in spite of these, and the further drawbacks of being hemmed in on all sides by surrounding buildings, it still asserts itself and commands attention. The purity of the style and details contrast favourably with the hybrid and debased classic work of the present Reference Library in King Street; indeed we could not have a greater contrast. The Art Gallery has just been cleaned right through. This was rendered necessary from the structural re-arrangement of the rooms which has taken place to meet the necessities of the new purposes it will be requierd for.

The suite of rooms on the ground floor make a very fine range of galleries, taking in as they do the old Academy rooms and the rooms hitherto used as the School of Art. These are to be devoted to textiles, sculpture, and a mixed loan collection of articles from South Kensington, while the rooms upstairs will be used for the permanent exhibition of pictures and the usual bi-annual ones. The inauguration is auspicious, we trust that it is only the key note of the future success of the scheme.

Mr. W. Cave Thomas has some pertinent remarks on the subject of mural painting in *The Builder* of August 25th. Mr. Thomas well compares the apathy with which the English public regard any scheme of decoration for public buildings, with the enthusiasm which such work always excited in the old Italians and Greeks. The writer further points out the old art triumphs of Greece and Italy were the gradual development from mural painting, and did not come from the waiting on genius and inspiration which seems to be the accepted method of practice nowadays. The general drift of Mr. Thomas's remarks is, that if we are to look for higher work from our mural decorators we must give such decorators a more general application and higher recognition than has hitherto been the case.

TRADE INTELLIGENCE.

Messrs. Walker and Sons, of King's Lynn, Norfolk, are introducing a new priming suitable for all purposes where paint is used—stone, cement, plaster, or wood. Of the efficacy of the priming we can speak in the highest terms, having just experimented with it on some work in hand. The priming is thin but penetrating, and forms a hard surface on the material it is applied to, on which the paint is afterwards used. Apart from the gain in price over ordinary paint priming, the saving in time is immense. With Walker's priming, a man will put it in a bucket, get a flat brush, and be round a room in quite one-fourth of the time he would occupy in the ordinary way. That this is the case we vouch, and if further recommendation is needed, we can only say that our subscribers are slow to see what is to their advantage.

For several months past two of the picture galleries, the staircase hall, and the lower corridor in the Museum, Peel Park, have been in the hands of Messrs. Best and Lea, of Manchester, for painting and decorating, and the manner in which they have accomplished the work will fully sustain the reputation they have acquired for decorative work of a high class in many public institutions both in London and the principal towns in the country. The intention carried out with such success in the museum was so to color and adorn the rooms as to make the most of their architectural details, and at the same time to adapt the work to the paintings and objects displayed on the walls. The walls of the galleries are painted in oil, of rich Indian red color, which is, in the opinion of good technical authorities, a color best adapted for the effective display of pictures in a large gallery, and certainly such is the case in the Langworthy Gallery, as it is now to be seen. The north gallery has, in addition, the ceiling more elaborately decorated with hand-painted illustrations from the vegetable world. This room has a suite of cases filled with samples of natural products, raw materials, and such like articles, and the decorations are designed to be illustrative and educational in a similar direction.

The ceiling is divided into five bays by arches springing from the beam below the windows. Each bay has the flat of the ceiling, and the cove with four panels, besides the spandrels of the arches available for special decoration, the details of which are as follow:—In the ceiling of the central bay is a subject treated in a conventional manner. The typical sun is centred in cerulean clouds resting on the waves of an ocean bearing four argosies of the antique build. At the angles of the flat are heads typically known as the winds blowing from the four quarters of the globe. The work is cleverly done. On the spandrels of the arches are painted restorations of four of the best known plants from the coal beds of Lancashire,

colored as they probably were when in a living state. Below, in the panels of the cove are depicted a group of leaves of other coal plants, a fern of the Silurian age, a feather-leaved palm of the Triassic age, and a Sabal fan palm of the Tertiary age. The central bay is thus treated broadly to a physical illustration of universal nature.

In the bay nearest the entrance to the gallery the botanical paintings are selected from the tropical productions of Asia. The central circle shows a large group of sugar canes. In the angles are the cinnamon, tea plant, rice, and the poppy; in the spandrels there are various orchids and the quassia; and in the four panels below are the bread-fruit tree, pomegranate, camellias, and rhododendrons. In the following bay the illustrations are drawn from plants of European reputation. In the central flat is the olive; in the angles the barley, the vine, the potato, and a group of the rose, shamrock, and thistle. In the spandrels are other plants, and in the panels below, the hop, the oak, the chestnut, and the almond. In the bay beyond the centre are a number of plants peculiar to Africa. In the central flat is a fine painting of the palm oil tree. In the angles are the fig, the date palm, the cocoanut and the banana. On the spandrels are several medicinal plants, and in the panels below are the papyrus, gourds, the aloe, and the gum-yielding acacia. The last bay is illustrated with plants from the New World. In the central flat is the maize corn; in the angles the cotton tree, tobacco, coffee, and castor-oil plants. On the spandrels are medicine and dye-yielding plants, and in the panels below are the cocas, the cactus, the cinchona, and the passion flower.

The whole of these sixty botanical drawings are taken from illustrated works on botany in the Reference Library, and in the selection and arrangement of the decorations the artists, Mr. Wharton and Mr. Plant, the curator of the museum, may be equally credited with whatever praise it may obtain. The decoration of the staircase hall is done in a different manner to the galleries, the architectural features necessitating a quieter style of treatment. The walls are finished in oil—as in fact is all the new work—of a soft blueish green with a dado of chocolate brown, stencilled with running scrolls of a lighter tint. The ceiling is flatted with delicate colors, having lines of darker color marking the panels. The cove is decorated with oak-leaved scrolls of a rich golden hue on a light ground, and in the centre of each is a medallion drawing. The subjects represented are the elements. The framework of the great window is colored in tints of buffs and browns, and the walls of the lower stairs and about the hall are dark chocolate. The corridor has the ceiling carried out in light tints, and the walls are a rich old gold color, which when well lighted up has a marvellous effect in setting off the classical busts and statuary arranged along the sides. This is a great improvement upon any color which has been tried previously in this part of the museum. The result of this recent decoration is so pleasing and satisfactory that it is quite likely that the Committee will endeavour to continue the work of beautifying the remaining gallery and rooms early in the coming year.

We have to intimate that for the convenience of the Papier-Maché Company we have got a number of their catalogues at the Head Office, and shall be pleased to supply them at the usual price of 1s. 6d. each. There are so many purposes that this valuable material can be made available for that we would strongly recommend the trade to get the catalogue for themselves. We have no pecuniary interest whatever in the sale of them, and therefore speak quite disinterestedly.

The Building Trades Exhibition at St. James's Hall is not a success, the attendance and interest in it being of the most languid description. We do not consider that the Exhibition warrants this, but the fact is becoming plain that these sectional exhibitions are interesting to only a very limited number, and have been overdone during the last four or five years. The freshness has departed, and without the addition of some attraction in the form of machinery in motion, or a good collection of art works, the public will not attend.

The exhibits of Messrs. Larmuth and Sidebothom of wooden mantels are worth inspection, and on this stand are some of the most decorative tiles we have seen for a long while. They are broad in their treatment, and generally are conventional renderings of some plant form. A series of figure designs are also very excellent in their severity and simplicity of handling.

We omitted last month to draw attention to a new surface which Messrs. F. Walton and Co., of Sunbury, are introducing This is a corded surface, exactly that of corduroy. Of itself this would make a very unique dado, but used as a base for stencilled ornaments, it lends itself to the most decorative treatment, and will produce very good effects.

Messrs. Wilcock, of Burmantofts, have a most interesting exhibit of their renowned ware, amongst which a large number of decorative plaques and tiles are to be seen. The drawing and modelling in these is of a very high order of merit. Some large figures for jambs of fireplaces are very fine indeed, and the glazing adopted adds very much to their artistic results.

ANSWERS TO CORRESPONDENTS.

Enquirer.—There is no other means we know of for drying quickly newly-plastered walls or cornices, but the application of heat, good fires with free ventilation, and open windows on dry days, or the use of portable furnaces, which is a difficult and laborious method as well as being costly.

Apprentice will find all the information required on the blocking and shading of letters on glass in our articles on glass gilding in the December, 1882, number of this journal, which is still in print and can be had from the head office.

Enquirer.—In a 3 cwt. cask of oil or turps there is about 39 to 40 gallons, which gives an average of a little over 13 gallons to the hundredweight.

Spirit Color.—In answer to your question as to how spirit color oak is done, we have before described the whole process in the January number for 1881, but unfortunately some reprints of this number cannot be found; we will advise you, if found, next month. We have not space this month to repeat the information, but will give the essential particulars in the answers to correspondents in the October number of the journal.

A Subscriber from the first.—The Frieze stencilled in size, gilt, and outlined, would look well. The dado in old gold colors, two shades, and a purple shade made from the damson brown, will produce good harmony. Have the ground color of the dado of middle strength.

Improver will find every kind of information in our article on Stencils and Stencilling in the first Vol. of the Journal of Decorative Art. Here we may say in answer to his question, that the average width of border stencils is four inches—this width is suitable for staircases and dados round rooms—but of course narrower borders are used as well as broader ones. The ordinary stencil brush is of course the best for the work, being made expressly for the job, and may be purchased from Mr. J. Hill, 230, Pentonville Road, King's Cross; or, Messrs. Crowden and Garrod, Southwark Bridge Road, London.

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"Remember therefore always, you have two characters in which all greatness of Art consists:—First the earnest and intense seizing of natural facts: then in ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

(ALL RIGHTS RESERVED.)

CHAPTER XXXI.—EMBOSSING ON GLASS.

THERE is a process of painting in an ornament or letters on glass for embossing, which is, in a great measure, the same as is used for etching on copper, and is called—when so used—the brush system, in contradistinction to the etching proper with the point. This process, when applied to glass work, is done as follows:—

The glass is first made perfectly clean, and must not afterwards be touched with the fingers. We now mix up a little dry colour with a strong solution of white sugar. The colour must be an impalpable powder, as any rough colour or grit would defeat the end in view. These must be thoroughly tempered and mixed together, and then mixed with about half the quantity of a solution of ox gall. With this solution the ornament is pencilled in and left to dry hard; when this is the case we pour sufficient Brunswick black, or other stopping out ground, as will cover the whole of the glass, and, by moving the glass first in one position and then in another, we cause the black to flow evenly over the whole surface without disturbing the pencil work, which we should do if we put the black on with a brush. We now put the glass away for twenty-four hours or until it is hard enough to bear the action of the acid. We then put the walling wax round, as before described, and pour on the acid; after a little while we take a feather and brush off the sugar solution, which by this time will be breaking up all over the plate; the feather will clean off all the solution and leave the ornament exposed clear and sharp to the action of the acid, which is then manipulated as we have before described.

In many cases this will be found a useful process.

We conclude this subject with the account of what is called a new process for rapidly etching and matting patterns on glass, invented by a Dr. W. Grune, of Berlin, and is described in the following terms:—

Aqueous fluoric acid dissolves glass without exercising a visible influence upon the remaining surface, leaving it approximately bright. Profiting by this peculiarity in its corroding power, the inventor has availed himself of reserving materials which have before been thought comparatively useless, in consequence of their feeble resisting capacity. These substances, if placed upon glass in very thin layers, and even dried and hard, will give way in a few seconds to a solution of fluoric acid in water. Being simply used for the above purpose, very faintly marked, and bright results will be seen; but, if they are powdered when placed on the surface of the glass with very finely divided metal, copal, or other substance resisting the action of the acid for a longer time, and are allowed to dry on after breaking them with the acid, a more or less matted result is obtained. The practical advantage of this invention is that, the corrosive action being very quickly performed, those parts of the pattern required to be bright need not be covered by any resists whatever.

Only feebly resisting substances being required, which would be useless for the ordinary method of procedure, all the well-known methods of drawing with the brush, pen, stylus, &c., can be employed.

The inventor also takes advantage of thin and thick resists, using sometimes fine and coarse materials for powdering, obtaining thereby a matted appearance of different density of grain or surface. In drawing one can, therefore, obtain different variegated degrees of shading by the simple use of various materials on one and the same surface.

In describing the *modus operandi*, the process is divided into two parts, firstly, the simple process by which a matted pattern or drawing is put upon the glass, and secondly, the double process by which a bright pattern may be reserved upon the glass, the ground work being matted.

For the simple process, the drawing is put upon the object either by hand transfers or direct printing, with almost any oil or varnish mixed with a little colour to make it usable; it is then powdered by means of a brush or tuft of cotton wool, or in other suitable manner, with pulverised metal, copal, or similar substances, or bronze powder may be used. After being dried, it is dipped in fluoric acid, or the acid may be put on with a brush. After a few seconds the powder begins to shell off. The glass is then washed in water. It is not necessary to remove the greasy printing colour, which comes off in the process.

The double process is thus described by the inventor:—First, I either paint, draw, or print the pattern in a material which will resist the action of the acid; when dry, I oil over the whole surface by means of an ordinary printer's composition roller, with a greasy printing colour or oil varnish, then powder, treat with acid as before described, and wash off the acid; I then remove the resisting pattern, either with an alkaline solution, benzine,

alcohol, or like solvent. Instead of applying the acid as a bath or by a brush, I may apply it in the form of a fine spray.

An important feature of this invention is this, that whereas other patterns or designs in vitreous etching are depressed below the surface, by this method the deadened or matted portion is raised above the surface, as may be tested by running the finger nail over it.

The invention may be summed up as follows:—The powdered materials allow the acid to flow between the particles, thus leaving a series of minute spots or holes between each particle, caused by the acid directly attacking the minute uncovered portions, and indirectly attacking the particles forming the resist (leaving them deadened) and thus a number of minute and imperceptible holes or depressions produce the deadened effect. The pattern may be bright and incised while the ground work is dead and intaglio; or the pattern may be in intaglio and the ground work bright and incised.

In concluding this series of chapters on embossing and etching on glass, we have, so far as our own knowledge goes, pretty well exhausted the subject, but our readers may rest assured that any new process or information bearing upon this matter will be duly noticed and chronicled in the Journal.

We take the opportunity to say that in some future number we shall commence a series of chapters on two different systems of glass painting, invented and practised by ourselves, capable of being worked out by any one who can use the pencil, as well as those whose artistic knowledge and skill will enable them to operate on works of a high class. These methods of glass painting will be found capable of representing all kinds of colour and designs on one sheet of glass, and without the necessity for its being fired in the muffle.

(To be continued.)

UTILITY IN DECORATION.

IN all the various phases of art, whether in surface decoration—in works in metal—in pottery or porcelain—in wood or stone—in textile fabrics—in wearing apparel—and in fact in every thing that conduces to our comfort and welfare, utility is one of the most important factors. We may cover our furniture, and everything we use with beautiful ornament, but except the thing ornamented is made and shaped in the best form or manner to serve the purpose intended—to be in fact useful—then the ornament becomes of comparatively little value. If we look at the question as it regards everything that surrounds us, everything that we wear, or that serves to create and maintain our happiness, we find that, except they have those qualities comprised in the word utility, they only bring discomfort and annoyance to us.

In considering the question as it applies to house decoration, we desire to show how necessary it is to be guided in this matter by hard facts, and not be led away by theories based upon the whims of crochety would-be teachers.

It appears to us that, apart from the abstract opinions of this or that person, as to the desirability of using imitations of woods and marbles, or any and every of what are called shams, we are bound to take into consideration the usefulness and lasting properties of certain imitations, and their suitableness to the purposes they are used for, and for which they are best adapted. For instance, there is an imitation of stone on wood which has all the look and feel of stone, and which we have known to stand exposed to all weathers for twenty years, and at the end of that time be about as good as when first done. This is brought about by throwing common sand, or pulverised stone, upon the paint when it is wet, in this wise. The woodwork is well painted with four or five coats of oil paint, the finishing coat being mixed with white lead or zinc white, boiled oil, and a little varnish to give it "tack" or stickiness. The paint is now laid on the work in the ordinary manner, using a fuller coat than in ordinary work. The sand is then thrown on to the paint with a common tin flour dredger, similar to that used in our kitchens. There are, we believe, machines which may be used instead of the dredger. Care must be taken that the work is well covered, or else there will be more in one place than another which will cause it to look shady. It is always best to throw as much sand on the work as it will hold, in order to make sure of its being well covered, and if sheets of paper are placed under the part being operated upon they will catch all the superflous sand, and thus avoid waste. The work should now stand for a few days, until the paint gets hard, the loose sand may then be brushed off. Now, if this is well and carefully done it will have all the appearance and feel of stone, and will last for a long period without being re-done. It is sometimes painted after being sanded, but if properly done it is much the best to leave the sand unpainted.

There are, of course, several kinds of color of sand that may be used, or small pieces of any particular colored stone may be pulverised and used for the purpose, and by doing different parts of the work at different times, various tinted sands may be used on the same structure, thus producing a highly ornamental work. If we are doing a column or pilaster, we might do the shaft the color of Caen stone, and the cap and base of the red Mansfield. Mouldings and other parts may be thus emphasised.

Now, here is an imitation of stone, simple, useful, and effective, having serviceable and lasting properties superior to any other method of covering and preserving wood, with which we are acquainted. The sand forming an imperious coating (in fact, it is a coating of stone, having this advantage over stone, that it is non-absorbent of wet or damp), the uses of this process will be evident. It will be said by the realists, Why not leave it as wood? Don't cover it and make it appear like what it is not. To which we answer, that planks of sawn boards, especially when exposed to the weather, alternate heat, wet, and frost, soon become split up into innumerable cracks, and the surface gets rough and unsightly, its

color dirty and black, nail holes and the rust from the nails become unpleasantly visible, and ultimately rottenness and decay in numerous forms set in, and it becomes unsafe, and has to be taken down and replaced with new wood. Now, if the wood is done over as described, all this is prevented, the wood preserved, and always pleasant to look upon. It will be said, Why not varnish the wood, and then it will resist the weather? It is quite true that if the wood is well varnished its surface will be preserved for a time, but how long a time? If it is outside work (and it is of that we are writing) varnish will not stand above two or three years, even with the very best varnish. The heat of the sun dries up and exhausts the oil of the varnish, and when that is gone the gum shrivels up, cracks, and turns white, peels off and perishes, and as a consequence the wood is left without protection, or worse.

In some cases artistic taste and love of the beautiful, when beautiful wood is used, or when carved work is in question, may induce us to leave the wood uncovered or unprotected, but utility and common sense bid us cover up all outside woodwork, and thus preserve it. And even with regard to carved work, especially when it is of a fragile nature, we are of opinion that some sort of protection should be given to it, and most of the exquisite examples left by Grinling Gibbons and his contemporaries are now crumbling away from the effects of time and decay. We remember some forty years ago examining some exquisite carvings executed in oak, and some in pear tree wood, which were rapidly falling to decay—worm-eaten, and, in fact, all but destroyed. We suggested that some means should be at once taken to arrest further decay, and preserve them. The gentleman to whom they belonged rose up in arms at once at the bare suggestion. It, no doubt, seemed to him a profanation to touch them with any vile composition. As the artist had left them so should they remain, a very proper feeling in many cases, but in this case, when Father Time was using his destructive and disintegrating chisel, and with such fatal effect, we ventured to differ, and after much persuasion we induced him to allow us to try what we could do with part of the work. Our first efforts were directed to the cleaning of the carving from the accumulated dust of years, which we did as well as we could by blowing off the loose dust with a pair of ordinary house bellows. We then used small hog-hair brushes, and by supporting the weak parts of the carving with the hand, we managed to clean it well without injury to the most delicate parts. We then used the bellows again to blow off any remaining particles of dust from the interstices or undercutting. When it was as clean as we could get it we placed it in a tub large enough to hold it, and then filled the tub with the purest linseed oil we could procure, high enough to cover the whole carving, and let it stand in it for twenty-four hours, and when taken out we cleaned off the superfluous oil with hog-hair brushes, wiping the oil out of the brushes as we used them, until there was not left sufficient oil on the surface to form a skin. This is a very important point in the process, and requires great care, otherwise the carving would be spoiled. The oil darkens the wood a little, but not so much as would be supposed, the oil being free from litharge or any other dryer or colouring matter. After twenty years had elapsed we again saw the same carvings, and we found that in those which had been treated in the manner described decay had been completely arrested, and that the wood had become so hard that a sharp knife would hardly touch it; while those which had not been so treated were in some parts irretrievably gone, and the rest were rapidly following. Now, we hold it to be unwise, and in fact, almost a crime, to allow these beautiful creations of man's genius to go to decay, and be utterly destroyed for the sake of a prejudice, or rather, an obstinate persistence in what is evidently a mistaken notion. How many valuable and exquisite works of this description are in the same condition for want of some such means being applied to prevent them! Would it not be better a thousand times over to sacrifice a little of their beauty than to see them as they are? Of course, we would all rather see them untouched, as they come from under the artist's hands, but common sense steps in and points to the fact that however beautiful these things are, and although they may appear, and in fact are more beautiful as they are, yet the material of which they are composed is of such a perishable nature that they must of necessity perish in time, and all the labour and skill, and thought, employed in their production is for ever lost, except some means be taken to arrest the hand of the destroyer. We are surprised that a remedy has so long been delayed. We do not advise varnish or polish to be used. The process we have described does not produce the same results as they do, but leaves the wood nearly dead, that is, without gloss, although there is no better polish for hard woods than linseed oil itself. If a mahogany or oak table, hand rail, &c., be rubbed regularly for years with pure linseed oil, the polish which results is the best and most durable that can be produced, and becomes so hard that scarcely any ordinary usage can injure it. We see that the question is being debated as to whether paint does really tend to the preservation of wood. We are sure that paint does tend to preserve wood, if the wood is sound and dry when put up. Graining and varnishing which is done upon previously well-painted woodwork, is of all kinds of painting one of the best and most useful styles of painting. There are thousands of English homes in the construction of which no other wood is used but the common spruce pine, full of ugly resinous knots, and which for that reason, and many others, must be painted and puttied to make it at all passable, or pleasant to look upon. And even if we could use real oak and mahogany for our doors, that is, if they were cheap and plentiful enough for that purpose, it would not in the majority of cases be wise to leave them unpainted, as they would require so much time and trouble to keep them bright and clean that one-tenth of the house-dwellers could not afford the necessary time and cost to keep them in order. But dealing with ordinary houses, in which the common deal is used, we may at once say that it is not only more

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convenient and economical, but it is really better to have painted woodwork in the majority of our houses—better, because woodwork painted, grained and varnished is the most cleanly-looking and suitable method of decorating the doors and other woodwork in all those rooms in our houses which are subject to much wear and tear and hard usage. Now, for this purpose nothing can be more appropriate, or more useful, than imitation of woods, well varnished. Its lasting properties are superior to almost any other kind of painting and, at any time, a wash down and a coat of varnish makes all new again.

LESSONS IN TILE AND CHINA PAINTING.

(ALL RIGHTS RESERVED.)

(Continued from page 389.)

THE following are the principal colors required for general use in enamel painting. A bright red similar to the pompadour red we described, purple, rose, and carmine, a dark warm brown and a red brown, yellow, orange, a light bright blue and a deep blue, chrome green, and a softer shade of green such as brown green or shade green, and a black. There are some other varieties of red which are occasionally required, principally two scarlet reds generally known as coral red, and best red, and a dark rich red known as purple brown.

The enamel color known as purple is of a dark red or marone hue and not a mixture of blue and red. This may seem a simple or meagre list when compared with the numerous colors named in the catalogues of some makers, but the retailer has not usually in stock all the colors on the list supplied him by the maker.

The important point is the selection of the most serviceable of them, and in the case of colors which may be found to undergo much change or fire away it is desirable to try others till suitable substitutes are found. Some of the richest dark browns, for instance, are somewhat treacherous and unreliable, and if a changeable color is mixed with one that stands unchanged in the fire, it is not possible to remember or judge of the proper proportions with sufficient accuracy when mixtures and inter-mixtures are freely made on the palette during the progress of the work, and it is desirable and possible to arrange a set of colors so that comparatively little change takes place in their appearance when fired.

We will now endeavour to point out the various mixtures and compound tints which may be made with the colors we have named, and in doing this we are offering suggestions which should be of much use and value.

It is not pretended that all the information here given is exhaustive or even scientifically accurate in every respect, for, the potting, the painting, the firing, and the chemistry are all branches of the ceramic art each of which might be a lifetime's study. Many china painters have but a very ordinary knowledge of the colors they use. On large works, or "Banks" as they are called in the Potteries, the employés are expected to confine themselves to their own departments and those who have the shrewdness to extend their knowledge, keep the information they acquire jealously to themselves for their own advantage in the keen competition which exists in the Potteries. It is noticeable that the works of unpractised hands are marked by a degree of crudeness in the coloring. It is true that raw bright colors prevail in much of the work executed by skilled professionals, but this is to meet a commercial demand for something effective, bright, and cheap. It is not art work, but a question of decorating a piece of pottery in a given time for a given sum, and these conditions will usually be found to be executed with infinite skill and judgment, especially if the attempt be made to copy the bold free handling with which any fairly good example is executed. The contrasts will be found to be powerfully effective and well-balanced and much may be learned by close observation of the manner in which such effects are obtained, We, therefore, suggest that the mixtures here given should be tried on a trial tile, and reliable colors gradually substituted for those which are uncertain, until a little set of about ten colors is formed, and if such an arrangement be carefully made, one of our principal difficulties vanishes and the work may be executed with delightful ease and certainty. The red brown we have described is often used by the uninitiated in painting heads and flesh, an attempt being made to redden the cheeks and redder parts of flesh with an iron red. In this case the stronger touches will be found to remain in circular patches, the thinner gradations having entirely disappeared. It would be possible to put the red tinge on the brown if the brown were first fired, but if the second firing exceeded the first in the degree of heat attained, the red would disappear in a greater or lesser degree, in proportion to the extent of the overfire. In decorative work the flesh is generally rather flat and uniform, but when a more varied and natural flesh tint is required, it is best formed by the addition of rose colour to orange till a pale flesh color is produced. The addition of more rose color will give the deeper tinge necessary for the cheeks, lips, &c. The orange should be kept slightly in excess, as the pinkness of the rose color is thereby qualified; this can be further effected by the addition of red brown. Clear blue can be worked into this mixture to form the greys. The lighter parts of the flesh can be more orange or yellow, but the direct mixture of orange and blue should be avoided as a greenish tint is apt to result. The addition of red brown, blue, and dark brown, would give colder and stronger shades; rose color may be added to the browns to redden them. A dark brown can be formed of red, brown, and black, but this is a mixture to be avoided in delicate work, as the black develops cold and strong. Black mixes with orange, purple, green, brown, and blue, and most of the other colors. Orange with a little black, or these with a little red brown make a quite color for toning down the raw white parts of the surface, which is being painted on. Dark brown and yellow help to serve the same purpose, but an



L'INCRUSTA WALTON STAIRCASE DADO: "THE RENAISSANCE."



excess of black is always to be avoided. A crudeness of the greens in particular is observable in the work of the inexpert, due partly to their development in the fire, chrome green, which is a strong colour being often used too freely. A bright green cannot be made by a mixture of yellow and blue, but a soft harmless green may be made in this way, which can be strengthened by the addition of a little chrome green, or brightened somewhat by the addition of more yellow, or toned down, or qualified by the addition of shade or brown green, or brown orange or purple, the latter colors being useful in making the tones of the old and fading leaves. There is no object in making a direct mixture of such colors as purple and yellow or orange, or purple and chrome green. The result would be a muddy tint, but the mixture of purple blue and a little red brown and shade green would give a sort of "lead tint" which is sometimes useful. Red brown and purple together form a bright strong color. A mixture of color and enamel white is not usual for painting on the glaze. In addition to the colors we have named, turquoise may be added if required, for bright backgrounds, &c. This and certain other colors, such as marone, are sold as colors for grounds, and are not intended for mixing purposes. Minton's and the colors of some leading firms are beautifully perfect, and can be intermixed and used with perfect freedom, but are, of course, kept exclusively for their own work. The colors which are now retailed and generally obtainable are Worcester colors and French colors, and also some very good colors from the Staffordshire Potteries; the latter, however, might possibly require the addition of flux in the proportion of two of color to one of flux (coral red, best red, and purple-brown excepted). The ordinary firing in iron kilns may be just sufficient to fuse colors which are a little hard, but in this case every time the firing was a little slack the colors would be proportionately underfired. It is possible to soften all colors by the addition of flux, but it is *not* usual or advisable to do so, and the tendency of the rose colors to turn blue would be greatly increased. Most colors, although of different makers, will be found to mix fairly. While it is not necessary to confine ourselves exclusively either to French or English colors, it is well to make a trial of any color that seem especially suitable so that any less satisfactory colors in use can be gradually replaced. We do not say, however, that the colors of any one maker are sufficient to produce capital results, for both the French and Worcester colors are very excellent. But usually one or more colors by certain makers are especially famous, and China painters and most large firms are in the habit of sending to different makers at home and abroad for particular colors, which are exceptionally excellent. A good dark brown for mixing purposes is a very necessary color which is sometimes difficult to obtain, and one which should be carefully chosen. There is a clear red brown called 13C brown; it is much used in the Potteries, and it is to be obtained at some agencies; it is a very serviceable color answering all the requirements we have mentioned, and when possible should be obtained.

**

OUR ILLUSTRATIONS.



E this month give five pages of illustrations. Our first sheet is a new dado, "The Renaissance," just brought out in Lincrusta Walton, by Messrs. F. Walton and Co., of Sunbury on Thames. No words of ours are necessary to commend it; it comes with its own passport to the favour of the trade in its beautiful lines and pleasing dispositions. Made in the light straw-color, and coated with a mixture of raw umber and ochre, and afterwards wiped off clean, it has all the appearance of carved boxwood. Made in the light red and rubbed over with a stiff mixture of burnt Turkey umber and black, and then wiped off loosely, it has all the appearance of carved old oak. As shown on the illustration, it is made for staircases as well as rooms. We may also note that the company are sending out a small new book of lithographed illustrations, price 4s. 6d. This book is down to date, and contains most of the designs now made.

Our second sheet is a sketch of two Japanese Screens, taken from Messrs. Rottman, Strome, and Co.'s warehouse; they are full of the free fancy and play of ideas which is so prevalent in Japanese work.

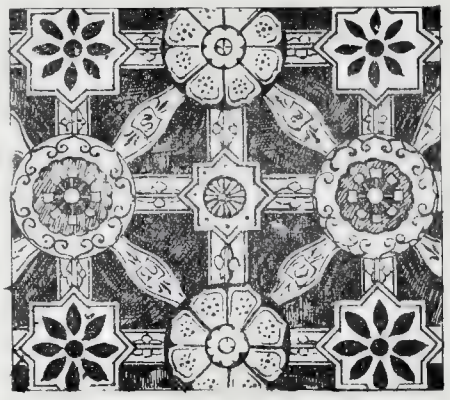
Our third sheet shows a Dado and Frieze for staircase, to be stencilled. The design is of a nondescript character, and is suitable for a large number of houses where there is no pronounced style of architecture. In the following treatment of colors a pleasant effect would be arrived at:—Dado, warm brown shade, the color of dry raw umber only a little deeper and fuller, got by the addition of a little Vandyke brown and a touch of ultramarine blue. Panels, old gold color, stencil-color background of panels Indian red, deepened with a little blue; the stems on the dado space between the panels dark brown, almost chocolate, the leaves dark olive green, or if outlined, a light pale golden green; the leaves on the panels could be washed over with a transparent glaze of color, and if the whole of the ornament on panels were outlined with a fine black outline the effect would be very decorative. Background of border, old gold, same as panels, with the leaves stencilled to correspond with the dado, the difference in the ground would give quite a variety in the result, the broad bands top and bottom of the dado could be done a deeper shade of the dado color, only with a purple cast, and the fine lines could be done in black; the three fine lines above the border on the wall space could be done in the color of the dado ground, thus softening off into the ground of the wall. Wall space, a blue-green shade, made from ultramarine blue, and a little ochre added to neutralize the blue shade, which should not be too deep. Frieze, ground a light shade of old gold, stencil, cream or pale green, with a brown outline, flowers brown or black, or red, outlined.



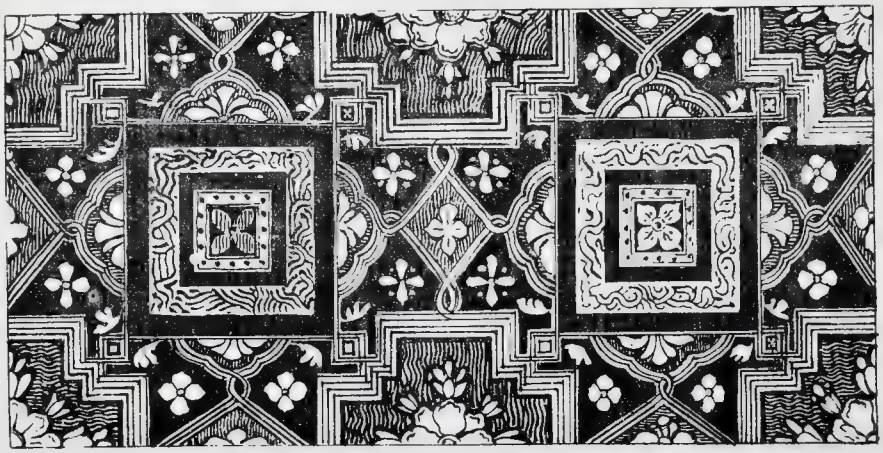
WHEN Owen Jones wrote his "Grammar of Ornament" Japan was a sealed book, its storehouses of art were unknown except to a limited and favoured few. Had we been as familiar with Japanese art then as now no doubt the knowledge would have had a considerable and modifying influence on the great work associated with Jones's name. The revelation came to us just at the time that the strong Gothic feeling of the middle part of this century was beginning to work itself out and pulsate in a languid and feeble manner, and it served the purpose of infusing a freshness into the ornamental Gothic details of fifteen years ago. Like most new things, however, it was abused. It became a fashion and a craze to have Japanese goods, and so indiscriminately were they used that the inevitable result was nausea. The public grew tired of their whim, new claimants were at hand for their favours, and the Japanese craze, like many other crazes, now, happily, belongs to history.

"Le Roi est Mort—Vive le Roi."

The sentiment is applicable here. The old fiction, that the king never dies, is true of all art; the fashion may die out, the craze may disappear, fortunately, but art endures, and, like truth, can never die. The rage for everything that had the faintest savour of Japan has disappeared, but the flood of new light which the opening up of Japan, and the importation of Japanese goods into this country brought with it, has left an indelible mark on contemporary art that is calculated to effect greater changes in our decorative work and methods than it has yet done. The piquancy of manner in their handling of a subject however simple or common, their close grasp of, and intimate acquaintance with, natural forms, their apparent abandonment of all the rules which in European art we had come to regard in the light of laws, makes their work nteresting to all lovers of art, and most instructive to the student of decorative forms, so that if this were all we had to chronicle of the appearance of Japanese art it would be no mean record. But the tale is by no means complete. What has gone of Japanese work is merely the surface excrescences; the movement and the taste it created remain, only; cultivated and discriminating.



The last few years has seen a welcome tapping of new sources and fresh departments of their industry in the importation of Japanese "leather" papers. The value of these papers are intrinsic, and quite independent of fashion or "fads." The unequal and yet general uniformity of color, its semi-transparent character in combination with the subdued brilliancy of the gold lacquers, contribute to produce an effect, unique of its kind. The papers are, broadly speaking, made in two grounds, red and green, in addition there are a number of patterns done in various shades of plain bronze lacquer, but which have a decorative value of a high order, especially when used as a ground for stencilled or pencilled decorations. These plain self colors are most useful for small surfaces as, friezes or panels, the embossed pattern on them breaks the plainness of the bronze and gives an added charm to the finished decoration. There are also a number of these papers highly painted and picked out; these again are more suited for small surfaces and, cut up wonderfully well, yielding surprising decorative effects. Generally we may describe these leather papers as a "safe" decoration, that is to say, their ensemble



is generally so quiet and rich that they will harmonise with almost any kind of treatment and furniture that is likely to be used for halls, dining-rooms, or libraries. The embossing of the patterns again, adds a further interest to the surface inasmuch as they yield a play of light that no ordinary paper



can possibly do. Five years ago these goods were regarded as more suitable for cabinet makers and for little special purposes and jobs than as serious competitors with the ordinary wall papers. To-day, however, the position is entirely altered and they are rapidly taking their place as one of the ordinary adjuncts of a well equipped decorator's stock. Nor can we wonder at it. Apart from the element of novelty is their intrinsic beauty, and we feel assured that having now



established themselves, their claims to be regarded will not be lightly set aside, but continue to grow in public favour and esteem. At the date we name the sale of the goods did not exceed a hundred rolls per month, now, so much has the supply created the demand, Messrs. Rottman and Strome import them over in ship loads, and the trade has become a very large and important one. This is not to be wondered at when we consider the artistic value and decorative qualities of the papers themselves and their comparative lowness of price. We have before us as we write, the pattern books of Messrs. Rottman, Strome & Co., and quite recently we made an inspection of their extensive stock in St. Mary Axe, E.C., and were highly gratified with what we there saw.

Messrs. Rottman, Strome & Co. hold the largest stock of these special goods in London, and two or three years ago, with considerable prescience seeing the future extension of the trade, Mr. Rottman paid a visit to Japan, and established a factory there under the firm's direct control and management.

Subsequent events have justified this step, as every day the trade is finding fresh outlets and new fields. The first three of the small sketches we show are all of them "set" or geometrical, in their design, and are admirably adapted for dado purposes. It must be understood that these are all stamped in relief, though our sketches do not give this effect. They can also be used in combination with ordinary papers, and finished with a wooden dado rail. Where a richness of effect is desired at a small outlay, we know of no material that will effect this so readily and well as these papers. The fourth pattern is suitable for the filling or upper portion of a wall space, and would make an excellent and quiet background for a library. The papers are made in twelve yard lengths, and are a yard wide, so that one piece of these papers is nearly an equivalent to two ordinary English pieces. Messrs. Rottman do not confine themselves to the native patterns, but have taken over examples of old Spanish leather and had them made in the new materials. Two of these designs in very high relief are splendid for good sized rooms where a rich effect is sought to be obtained. A very pleasing combination we have found to be a Lincrusta Walton dado, Japanese paper for the wall-filling, and a plain self-coloured, or simply a one-print paper, for the frieze; the dividing line of the frieze being finished with a picture moulding, and the dado being capped with a stained wooden rail. We thus get a combination of three different surfaces—a very important point when it can be managed. If the dado be rubbed down dark to the color of old oak and used as the key for the general treatment, most charming effects can be obtained. These patterns are selected at random from Messrs. Rottman's stock, and are only used here to illustrate our remarks. Every decorator who desires to keep pace with the times should write to the firm and invest in their pattern book. A principle of conducting their business adopted by Messrs. Rottman and Strome is that, *they only supply the Trade.* Private individuals calling on them, are quoted retail prices, and referred to the nearest decorator on their books to where the visitor may reside. We venture to think that this statement will give confidence to our subscribers that in dealing with this firm their interests will be properly safeguarded.

Screens form a large and important department of Messrs. Rottman's business, and those we saw when at the warehouse were remarkable for the taste shown in their selection, the boldness of their design, and the marvellous dexterity of workmanship exhibited in their execution. These range at all prices from two pounds to twelve pounds sterling, and are treated in various ways, embroidered in coloured silks, painted, and embroidered in gold threads, in each of these ways the peculiar aptness of the Japanese for decorative work shows itself. The sale of these goods far outstrips the present supply and we do not wonder at this when we consider the beautiful effects obtained, and the relatively low money value they are sold at. In our second loose sheet we show two small screen panels, very decorative in their effect, and useful for many purposes. We would decidedly recommend our readers to pay Messrs. Rottman a visit at the earliest opportunity.



TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 392.)

CHAPTER XXXII.—VERD ANTIQUE.

VERD ANTIQUE, or ancient green marble, is a very rare and beautiful marble, of a dark, rich green color, having various sized patches of solid white and black and semi-transparent green interspersed over its surface with streaks of various shades of green. This is a valuable marble for pilasters and columns, and for inlaying with other marbles. There are some slender columns of this marble at Chatsworth, the celebrated seat of the Duke of Devonshire, which are unique of their kind, the true verd antique being now exceedingly scarce, and, of course, proportionately costly.

There are also one or two table tops in the British Museum, which are very fair specimens of this marble. We are not quite clear as to where the quarries were situated from which this marble was procured; we believe the principal supplies were got from some part of Italy, from whence most of the rare marbles have been quarried, but we are under the impression that some of it comes from Egypt. The characteristic features of this marble are the black and white patches, which separate it from any other marble.

In imitating verd antique, we paint in the ground color with a dark, invisible green mixed flat and stippled. We mix two or three different shades of green, the darkest from dark Brunswick green and white, and the brighter shades from chrome green and white. We now use the feather and the darkest shade of green, and go over the whole of the slab with it in a fine, broken, streaky form, giving it a lead in one direction; in doing this we do not cover the whole of the surface, but leave a number of small spaces untouched. We then follow on with the lighter shades of green in the same manner, keeping the streaks fine and distinct. To prevent the colours running into each other too much, it is well to add a little japanner's gold size to the green we feather with. We now take a little thin white and lightly feather over the previous work with it, taking care to keep it distinct, and not to blur or smear the previous work.

The work must now be left to dry. We then mix a semi-transparent colour from green and black, giving the transparency by using it thin with turps and adding quick size to it. With this and a flat tin tool about one inch broad, we mark in some semi-transparent patches, large and small, principally of an oblong form, and running with the direction of the previous feather work. This should be done so as not to obscure the green veins, but allowing them to be seen somewhat faintly through the green; some of them may be part round, some angular. We now use drop black, ground in boiled oil, and thinned with turps and japanner's gold size, and with this put in a number of different sized patches—some large, some small—from 2½in. to ½in. These must have a broken form, with fine stripes of the green across them here and there. Amongst these we next put in white patches of various sizes, some partially round, others broken and angular, like broken pieces of earthenware. Both the black and the white patches may be put upon the transparent ones, as well as in and between them. Some of the whites must be semi-transparent, some solid, and others slightly tinted with yellow. When these are all dry, we take a swan quill or camel-hair flat tin tool and glaze the work here and there where required, cutting round and on to some of the whites. This sharpens them, and gives a better effect to the white patches. They look as if another rub of the sand in grinding the surface of the marble would clear off the glaze of green and leave the whole patch pure white just as some of them are left in the painting.

As we have said before, this is an exceedingly useful and beautiful marble, and when well done has a handsome and highly decorative appearance. Although the method of working is very simple, yet it requires to be done with great judgment and taste, or else we make it vulgar. The great danger with a novice is that he is apt to put in too many of the white and black patches, and does not group them properly. This is an error that only experience and observation will cure. We have often pointed out that all marbles have a certain set or run of the veins in one direction, this, of course, differing according as the slab of marble is placed; but in whatever position it is placed this run or lead of the veins and markings is perceptible. Verd antique is no exception to this rule, and, therefore, in imitating it this fact should be borne in mind, and even the white patches should be so plain as to give that effect to them.

GRIOTTE.

We now proceed to describe another useful marble, namely Griotte, which is of a dark, rich red-brown color, interspersed with brilliant spots of vivid red as bright as vermilion. Its veins are black and deep purple, which cut up the surface into small and large oval patches, with here and there patches of transparent and solid whites and greys. These latter appear, as in the Rouge and Sienna marbles, to be underneath the red. Most painted imitations of marble are done with an utter disregard to this fact. Marblers, as a rule, put in the whites and greys on the top of the other colors, thus giving the work a painty look, utterly destructive of all notions of a close representation, depth and transparency being completely ignored. We have seen work of this kind done by some of the best firms in the kingdom, in which the colors and general character of the marble have been in some manner kept in view, and which at a distance has looked somewhat like the marble intended to be represented, but the illusion has miserably vanished on a close inspection. The work we are more par-

ticularly referring to are some columns and pilasters in a fashionable club-house, and, of course, people in passing come into close proximity to them. Many architects and other persons also hold the opinion that if we get the color and character of the thing attempted to be represented, that is all that is required in imitations. Now, if the work can only be seen from a distance, as on the stage of a theatre, this kind of work will, of course, be right enough, and all that is required; but if the work is close to the eye, we are of opinion that the imitation should be made as close as it is possible for the artist to make it. Its being highly finished does not prevent its being effective at a distance. The two are quite compatible, but we hold that we derive a vast deal more pleasure from viewing a well-executed imitation than from a coarse, dauby one, whether it be of marble or any other product of nature.

In imitating griotte marble we work on a ground of dead white, stippled as for siennas, &c. The working ground color is mixed with Indian red and a little black and white added, forming a middle tint. We mix this with pure linseed oil, adding a little sugar of lead as a drier, but as the Indian red itself is a good drier, we do not require much of any other. We now rub this color over the work, rubbing it bare, but having almost a solid body. We then use the soft black crayon, and cut up the slab into large and small patches of an elongated oval form, a good deal in the character of Bardiglio marble, but having almost straight lines across them here and there. When this is done we soften and blend the veins with the hog-hair softener, being careful not to smear or blur the veins, using the end of the bristles. This if carefully done will keep every vein and mark to its original form. We now mix drop black and ultramarine blue together, using just sufficient black to take the brightness off the blue. We then take a piece of crumpled paper, as before described, and dip it into turps, and then into the blue-black, and touch the marble here and there while the colour is wet, having a rag or cloth in the hand to dab it with as soon as put on to prevent its running. If this is carefully done it will open out those small patches of spar-like white which we see in the real marble, the blue-black giving us the grey tints at the same time. We may now take a small fitch and a clean rag and touch some portions of the parts opened out with the turps, and dab with the clean rag. This will clean off the colors from the white ground in places where solid white will give the best or most marble-like effect. We may now put in some spots of vermilion here and there on the patches of red, or a little may be splashed upon it in places. When the work is dry, patches of darker red may be put on here and there, which will add to the effect, and the whites and greys may be touched up and improved where required.

Griotte Fleuri.

This is but another kind of the same marble procured from a different quarry, and having a very much larger quantity of the white and grey in it, more flowery.

(To be continued.)

MARBLE PATTERNS.

We beg to inform our subscribers that we have just finished a few sets of marble patterns, part of which are already disposed of. Therefore those persons who are desirous of securing one of the remaining sets should apply at once, as it will be some time before any more will be available.

We have much pleasure in publishing the following expression of opinion in regard to the marble patterns; the more so as it comes from a man who is fully capable of forming a correct judgment, himself having had a long experience as a grainer and marbler to the trade.

To the Editor of the Journal of Decorative Art.

"September 12, 1883.

"Sir,—You must excuse my neglect in not acknowledging the receipt of the marble patterns before now, but as the saying goes, better late than never. I want to tell you my opinion of them. I may say that on the whole I am very much pleased with them, and think they are worth double the money as examples to copy from, but you won't be offended if I find a little fault. Of course you would think I knew nothing about it if I did not find some fault. I must begin by saying that your Sienna is the very best imitation I remember to have seen, and I have seen some good imitations in my time, but I think there need not be any better than yours. The Italian pink is a beautiful marble, but I think your specimen is, if anything, too light. I have seen it done much darker, but the imitation is masterly, and such as, I am sure, everyone must be pleased with. Your green, I think, might be better. It does not appear to me to be quite up to the mark. The Breschia Ficario and Bardiglio are all that can be desired. The Rouge Roi also is very like the marble, but I have seen it with a lot more white and grey in it than in yours. I have given you my candid opinion as one able to judge, and consider you have conferred a great boon on the trade by consenting to do them.—I am, Sir, yours truly, J. H.

"An Old Grainer to the Trade."

With regard to the above letter, we would point out to our critic that in doing a number of panels of the same marble, there is sure to be some difference in the character of them; some may possibly be better than others, but the difference must be so small that it does not affect the question as to being a true imitation of the marble. For, as we have repeatedly pointed out, while each marble has a special character of its own, yet each slab of that marble differs in some degree in its markings and colour. We take the opportunity to say, that whether one pattern is better than another or not, we do not reserve any, but pack them up indiscriminately. We do not pick and choose—we have every desire to turn out every pattern in the best manner, and we are not sparing of our labour to that end, as may be seen by a critical examination of the same; our object being to instruct, and therefore we give to each pattern the characteristic features of the marble it represents.—[Editor of *J. D. A.*]

No bell can ring so loudly as a good advertisement. People will believe what they can see rather than what they hear.

A wealthy London merchant is reported as having said: "I always feel happy when I am advertising, for then I know that, waking or sleeping, I have a strong, though silent orator working for me; one who never tires, never sleeps, never makes mistakes, and who is certain to enter the households from which, if at all, my trade must come."

SCOTCH NOTES.

I HAVE to apologise for having taken up so much of your valuable space last month, and I will now be as brief as possible. Trade is getting quiet up here; many men are now out of work, and likely to remain so for months. It is a pity that our seasons are so short, but there seems to be no way of getting over it. In 1867 the nine hours movement was adopted by the Edinburgh painters, in hopes that the work might be spread over a greater length of time, but it made no difference and the problem is as far from being solved as ever.

I had a few days in the east and north recently, and found that Dundee was the only town at all busy. They are doing new colleges, churches, and ships, &c., there by the square mile. While there I saw a large block of offices which had been done with calcarium; this material has not yet been much used in Scotland, it seems to be thoroughly washable, but the streaky manner in which it dries out is a great objection, and the fact that it burns the brushes is also very much against it.

In Aberdeen I had the privilege of seeing the Music Hall, which has just been re-decorated. The following extract from the *Aberdeen Free Press* gives a very good description of the work:—

"The question of the re-decoration of the Music Hall—the largest and best public place of meeting in Aberdeen—had been raised by the general community in a quiet way some two or three years ago, but it was not till the annual meeting of the shareholders of the Company, held in the early part of the present year, that at last the directors saw their way to accept the inevitable, and state that they had resolved on having the work of re-embellishing the hall begun. They thereupon, following the advice of their Acting Committee, resolved to adopt the novel plan of not asking an architect or artist to prepare a plan for decoration—that having hitherto been the custom usually followed—but to offer a special premium for the best plan presented, which plan had to be reproduced on the internal walls of the building within a certain fixed sum. Plans were in consequence advertised for, the result being—though the directors were slow in coming to their judgment, so close were the claims of several—that they selected the designs submitted by the Messrs. Garvie, and for several months past the work of executing the contract has been in active operation. We have been supplied with the following technical description of the decoration of the hall:—The dominating colour is of a yellowish cast, sufficiently deep to give richness, and not too dark for lighting up. The tones have been graduated from a light parchment colour on the ceiling down to definite red and brown tints below, with attractive points of colour interspersed throughout. The scheme of decoration is of a Greek character in harmony with the style of the edifice. The ceiling panels are painted with an awning, bound with fret edging, relieved all round by points of blue colour, while centre ornaments of wreath and festoons give relief to the sunlights. The moulded blocks on the cornice have been gilded, and immediately under there is a rich frieze of wreath work, supported on dwarf pilasters running round three sides of the hall, giving place on the end over the platform to a series of tablets inscribed with the names of musical composers. The organ has been entirely regilded and decorated, and the recess behind it has been treated very richly, figures emblematic of "music," and supporting a harp occupying the centre portion, and on the side panels musical instruments enriched by wreaths. The pilasters are all panelled with running ornamental work and the caps gilded. The vestibule is painted with a panelled ceiling, relieved with diaper work and gold on a blue ground, the walls being of a deep buff, with pateras in self colour of a darker shade, finished at the top with a very handsome frieze. All round the lobby, staircase, and hall, a deep dado has been painted with a bold stencil on top. Mr. Alexander Aitken, of Messrs. Garvie and Sons, designed and superintended the decoration, and the completeness and taste with which the work has been carried out in every detail is most creditable, and proves that there would be no necessity for bringing artists from the large towns to carry out important contracts if country employers were so far alive to their own interests as to give decorative art the attention it now demands.

A little more scissors and I am done. The *Govan Press* recently had the following notice of some painting work done in that locality:—

"We observe that the vestibule and staircase in the Kinning Park Parish Church have recently been repainted. The work has been done by Mr. Henry Nicol, painter and decorator, 9, Sedan Place, Paisley Road West, and has been performed in a thoroughly efficient manner, the designs being of the most modern type, and executed with great accuracy. The work is indeed a real piece of decorative art, the colours being in exact harmony with the designs."

The Sanitary Institute of Great Britain have an Exhibition of sanitary appliances at present in Glasgow, where non-poisonous wall papers, paints, &c., are being shown. It remains open from 25th September till 20th October, and I would strongly advise the trade to visit it. It is being held in Burnbank Drill Hall, Great Western Road. I have only time at present to mention that the refreshment bar is at the west end of the hall, but I will give more information regarding it (the Exhibition I mean) in my next month's letter.

PETER PALETTEKNIFE.

TRADE INTELLIGENCE.

THE question what to do with the enormous army of unemployed clerks has again been under discussion in the London papers. The subject is no new one, though the present discussion has served to bring into prominence a phase of the question which, we think, has not been sufficiently recognized heretofore as amongst the causes at work to produce so deplorable a state of things. One writer points out that the evil arises in great part from the fact that there is such a demand for cheap clerical labour, and that this is obtained by offering to youths (what is to them) a comparative large wage, but a wage which has very little of the progressive element about it, so that at the end of a short time the boy finds himself at manhood's years with wages utterly inadequate to keep him respectable, and destitute of any mechanical or art training which would enable him to command a livelihood. The responsibility therefore lies with the parents; no doubt the temptation to place a youth in a situation where he can immediately earn fair wages is, very great in households where the difficulty of making both ends meet is seriously felt, but if the after misery and wretchedness of such a course could be foreseen it would operate as a powerful deterrent. When a situation value £30 per annum is besieged by between 2,000 or 3,000 candidates, it is time fathers and mothers pondered long and well before giving their children to such a fate.

OSTENTATION and display has been carried to its highest point at the new Holborn Restaurant. The large hall at present used as a dining-room addresses you from floor, wall, and ceiling. "Here I am, no deception about me, the real article and no mistake" it seems to say, and yet very few of our recent metropolitan buildings are more destitute of real taste. This is to be regretted as such places can, in proper hands, be made useful mediums of influencing the public taste. The greatest triumphs of good taste are to be achieved with simple materials, and a display of glaring costly materials is in no way to be compared with them, neither is such work in any sense educational. It excites the open-mouthed wonder of the vulgar, but does not evoke a single response from the educated taste.

AN instructive case came under our notice the other day showing how the public are victimised from all quarters, and that too by men (gentlemen?) who are supposed to have specially come into existence, "professionally," for the purpose of guaranteeing us from the dangers of unsanitary houses. One of these so-called sanitary engineers was called in by an agent to report on the condition of an empty house, which he did in the usual manner and charged the regulation fee. Work to the extent of £45 was rendered necessary and was undertaken. Our "engineer" was very anxious to have the

superintending of the work, and solicited the agent for it. When asked what his charge would be for undertaking such an onerous duty, he modestly asked £12 12s., nearly 30 per cent of the whole cost. This was bad enough, but the worst is to follow. On the agent demurring to such a charge, he (the engineer) quietly insinuated that, if the agent would pass on the order *three or four of the guineas should be paid to him.* Happily, the agent was an honourable man, and treated such an offer as it deserved. The incident, however, is full of subject for thought. It is simply abominable that amongst a body of men who are credited with being gentlemen such a grasping dishonourable spirit should be found. No doubt many of our subscribers could confirm from their own experience the prevalence of this sort of thing.

A SMALL contractor the other day had occasion to ask a firm of house-agents for some money on account of work already completed; he was told that all money paid out of the office before three months after the bill was rendered, was charged for by a *ten per cent commission.* This was in addition to a five per cent commission which had to be allowed for when the man got the order for the work. Here were a set of "harpies," posing as trustworthy gentlemen, using their little power to extort money from the needy circumstances of a struggling tradesman. Fortunately, this class of men are becoming known and avoided. They are a blot on a calling in which honourable men abound, and, indeed, in which trust and confidence are the very basis of their business; and it is only a pity that rogues like those we have alluded to cannot be branded in their true characters, so that men might see them as they are. Meantime, the tradesman has to be fleeced to keep up their position.

WE are pleased to find that Mr. Richard Glazier has been appointed teacher of the painting and decorating class, and also takes charge of the modelling class at the Manchester Technical Institute. We are sure this appointment is one likely to give satisfaction to all concerned. Mr. Glazier is exceptionally well qualified for such duties and we shall look with interest on the results of his work. We hope employers in the painting trade will back up the efforts of the Council of the new Institute, and encourage their apprentices and the young men in their employ to attend the class and get a more thorough grounding in the higher branches of the trade.

A JOURNEYMAN painter was killed at Glossop, on the 19th ultimo, through falling from a plank of the scaffold erected for the purpose of painting the Wesleyan Chapel in that town. Death was almost immediate.

An architect, who is also a manufacturer, writing to the *Building News*, amongst other things, discusses the relative value of private circulars and advertisements appearing in trade journals, and thus delivers himself. His testimony accords with all experience on this special point, and may be taken as valuable advice, not merely to those advertisers who appeal to architects, but to all classes of buyers:—"Now, a word or two to manufacturers. Don't bother architects with circulars and samples. They worry them, and do you little good. Circulars are the most costly and ineffectual means of advertising—that at least is my experience. I would further say, don't advertise at all unless you mean to do it regularly, and on a fairly liberal scale. In my early days of advertising, I thought for a long time my money was all wasted; but it all came back a hundredfold after many days. Most people stop when it is just coming back, and so throw all away they have spent. In your advertisements let an architect know as plainly as possible what it is you offer. He can't spare time when he is searching the advertisement pages of the *Building News* to write to half-a-dozen people who simply advertise a few head lines, such as 'Tiles,' 'Bricks,' 'Stained Glass,' and the like, followed by their names and addresses. But, when he comes to an advertisement full of graphic representations of what he wants, such—begging their pardon for mentioning them—as those of Lindsay and Co., Steven Bros., Hill, Blake, Doulton, and others in your own pages, whose long experience has evidently taught them my lesson, he rests and is thankful, and the lucky advertiser gets the order. Some will say, the architect might find all this at much greater length in our price lists which we send him regularly. So he might, doubtless, if he had time to look for them when he wants them; but they are all put so safely away in some cupboard that he can't find them. (He thinks so; the fact is the office boy clears them out regularly to his mother's butterman.) But your advertisement pages reach him week by week, and he turns to them for inspiration, and is thankful to get it with as little labour and expense as possible."

LAST month, our readers will remember, we had occasion to speak in high terms of the value to painters of the new priming introduced by Messrs. Walker, of King's Lynn. An extended acquaintance and use of it in the meantime has confirmed our good opinion of its value, and has added to the uses to which it may be put in a most important particular. When we state that it is a splendid preparation for ordinary distemper ceilings, making them work cool and sweet, the value to the painter of such a material will be immediately apparent; it is not incumbent upon us to say anything further beyond the fact that the new priming covers so large a surface that the very slight additional cost over a size preparation is not to be weighed against the gain in ensuring a good ground to work upon; indeed, when we consider the time spent in mixing an ordinary preparation we question whether there is an addition to the cost at all. Our duty is accomplished in thus drawing the attention of our readers to the priming; it remains with them to avail themselves of the advantages it offers.

MESSRS. DACK BROTHERS are offering to the decorating trade a valuable stencil paper in the shape of the Willesden Waterproof Paper. This paper is admirably adapted for the purpose of stencils. It is firm and tough, not easily torn, and cuts clean and sharp. It is made in continuous rolls 54 inches wide, and its waterproof qualities render any coating with knotting or other medium quite superfluous. The price is that of ordinary stout cartridge paper, and possessing the advantages already enumerated, it is a decided gain to the decorator's resources.

ANSWERS TO CORRESPONDENTS.

J. T. H.—On a little consideration you will see that it would not do for us to say that this or that manufacturer's white lead was the very best in the market. We should be taking a responsibility we are not justified in doing. We insert advertisements which may contain all and every praise possible of the advertiser's goods, but it would clearly not be within the purpose or scope of our journal to advocate or puff one to the prejudice of another, but we may add that we have personally used many tons of Messrs. Pontifex and Wood's lead during the last fourteen years, and have no hesitation in saying that it is as good as any make in the market, and is always to be depended on. The firm you name have not a large home trade, though they do a very extensive colonial business.

L. T., BURLEY IN WHARFDALE.—There is no other plan of making a rough stone chimney piece smooth but filling it up with either distemper filling or quick varnish filling, and then rubbing down until it is smooth. Full instructions for the making of filling-up colors, both in distemper and varnish and the whole process, will be found in the July and August numbers of the *Journal of Decorative Art* for 1881. Your second question as to the best preparation to put upon walls before applying distemper color is one that will always be governed by the state of the walls themselves, and what walls they are, whether of importance or otherwise. Common work may be prepared with a thin coat of distemper, having alum and pretty well of size mixed with it; but for a good job on dining-room or staircase walls it is always advisable to cover the walls with white lining paper, and color upon that, as it ensures a solid even job on new walls. Except this is done, we can never be certain as to how the work will turn out, owing to the great difference in the constituent parts of the plaster or mortar with which the

walls are plastered. This arises from many causes; unequal trowelling, the nature of the sand in different localities, the difference in lime, and even the water with which it is mixed may contain mineral solutions, which may destroy many colors that may be put upon the plaster with which it is mixed. And it is these facts that cause that uncertainty attending any distemper work on new plasters. Papering, so far as our experience goes, is the only remedy, and even that in some cases will not prevent spots and stains coming through to the surface. We do not recommend distemper upon painted walls, as it stops the absorbing power of the walls, and the result is, that the damp arising from the breath of a company in a dining-room done in this way will condense upon the walls and run down and discolor and stain them, but when done upon the bare wall or upon lining paper this does not occur.

Graining Oak in Spirit Color.—The information here given was first published in 1881, in the January number of this journal, but we repeat the information here for the benefit of our correspondent and others who have not that number. Spirit color graining differs from oil color in many respects. Its use, according to our experience, has been principally confined to the metropolis. Whether it is now as much used in London as it used to be we do not know, but for many purposes it is a very useful and cleanly process, and while it is inferior as a representation of the wood in comparison with oil graining it has an advantage not possessed by any other system, *i.e.*, that work done by this method can be grained and varnished on the same day, which advantage under certain conditions and for certain work, is a very valuable quality indeed—saving much time and labour. The method of working is as follows:—The graining color requires to be mixed with care, so as to avoid having too much or too small a proportion of this one or the other ingredient. The material required is some of the best washed whiting ground fine in turpentine, burnt sienna, and burnt umber ground in oil, and a little d p black. In mixing the whiting with turps add suff staining color (any of the above) as will stain the whiting to the required depth of color, whether for light or dark oak, then add sufficient turpentine varnish to bind or fasten the color when thinned to a working consistency with turpentine. A trial should now be made of the color before commencing any important work in order to test it. If it is not fast enough when dry add more varnish, and if bound too fast (when it will work thick) then add more turps. The color, if properly mixed, will work freely, but as it sets and dries quickly we shall require to be quick in working it. We brush in the graining colors in the ordinary way, laying it as evenly in body as possible. We then draw a common duster down the panel which gives light and dark shades. This must be quickly done, or else the color will set and cannot be combed. While it is wet we comb it with the ordinary steel combs. The color dries quite dead or without gloss. When the panels of a door are all done the mouldings can then be worked. It will be found that the color, in doing the panels, has dried on parts of the mouldings, but this will work up again when fresh color is worked upon it, or a little clean turps may be used to rub it up with. This may be done with a sash tool, and while wet the mouldings may be flogged with a sash tool, care being taken to keep them uniform in depth of tone and clean-looking in color. The best work is often spoiled by carelessness in this respect. The stiles of the door may now be done, and it will be found the best plan to do the cross rails first after the two stiles are done, and then the outer stiles. Much beauty is given to the work if the joints of the stiles and rails are cut sharp, clean, and straight, which is simply done by using a little turpentine and cutting down the line of the joint with it, then wiping or brushing off with a dry duster or cloth, which wipes off the color and makes a sharp clean cut joint. The panels and stiles being done, we use a veining fitch. This fitch is flat and long in the hair, or rather bristles, for it is made of hog hair, and is about three-eighths of an inch broad. We dissolve some common Scotch soda in water and add a little burnt sienna to it in sufficient quantity to enable us to see the marks as we make them on the graining color. We dip this fitch into the mixture and mark out the figure or dapple of the grain as seen in the real wood—some fine and others broad. It will be found that, by holding the tool lightly between the finger and thumb, using the fitch perfectly flat with the bristles close and compact together, exceedingly fine as well as coarse veins can be produced with extraordinary rapidity by an experienced hand. Great care must be taken not to let the soda flow from the fitch too freely, or it will spread and make ragged work, for it should always be borne in mind that wherever the soda touches the color will come away and leave a mark. When the work has stood a little while we take a soft sponge and plenty of clean water and wash the soda marks well off, which, if properly done, will leave the figures clean and bright without a particle of color left on the ground. The work must then be brushed over with weak beer and overgrained. A door may thus be grained and varnished in a couple of hours. The soda solution is sometimes dispensed with and turpentine used in its stead; in this case the grainer has to keep wiping off the figures with a piece of flannel as he makes them, before the turps has time to evaporate, but this method is not so good or cleanly as the soda plan. The heart or sap of oak may be admirably imitated with spirit color, especially on moulded surfaces. The curled part may be worked on the moulding with the corner of the fitch or with a camel hair pencil, using turpentine stained with a little burnt umber or sienna, and while it is wet brushing it in the required direction, which forms a thick serrated edge with a shady softened space between. The work may then be overgrained in the usual way.

J. A., Isle of Wight.—Mix the Charlton White over night and allow it to stand; in the morning pour off the oil on the top and add a small quantity of varnish, then thin with turps and you will get an absolute flat. C. W. does not become flat quite so quickly as lead, but it should never take more than twelve hours to go down.

Excelsior, Chelsea.—Messrs. J. B. Orr & Co., of 46, Cannon Street, will supply you with small quantities of either Duresco or Charlton White to sample them. In using the Duresco follow the directions entirely, as working it in any other way does not produce good results, and especially be sure and use the liquid preparation first. By attending to these little points you will obviate all difficulties.

Querist.—We cannot give you any information as to the price per ounce of badger hair, but we think you would be throwing labour and money away in trying to make the badger-hair softeners yourself, as you can buy them cheaper and better made than it is possible for you to make them. Messrs. Crowden and Garrod, or any of the brushmakers who advertise in our columns, will supply you in all prices.

One in a Mist.—The ordinary copal varnish will answer your purpose, if you will first give the glass a slight coat of isinglass size to prevent the varnish running. Turpentine varnish will also answer the purpose and will dry quick and hard. The best book you could get to study the various styles of ornament suitable to all the great styles of architecture is Owen Jones' "Grammar of Ornament." There is no other from which you will derive so much correct knowledge. You may occasionally pick up a cheap copy. If you will send us the numbers of the Journal you want binding we can get it done for you at once.

A. P. Edensford.—The instructions for graining maple, both in distemper and oil, will be found in the July, August, and September numbers for 1881.

JOSEPH MASON & CO.,
MANUFACTURERS OF
VARNISHES, PAINTS, & COLOURS,
5, Derwent Street, and Burton Road,
DERBY.



JAPANESE SCREEN PANELS.



EXAMPLES OF ORNAMENTAL HEADINGS

FROM "THE ART AMATEUR," NEW YORK.

Vol. 3. No. 35. November, 1883.

Gallery and Studio

TRADE GOSSIP

CINCINNATI BREVITIES

ART AMATEUR

SALMAGVNDI

MAN ABOUT TOWN

CERAMICS

The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: 15, ST. ANN STREET, MANCHESTER.

MONTHLY.] NOVEMBER. [PRICE 7d.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First the earnest and intense seizing of natural facts: then in ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

IMPORTANT NOTICE.

WE hereby give notice that W. H. Morris is no longer authorised to solicit subscriptions, receive monies, or transact any business whatsoever on our behalf.

(Signed) W. SUTHERLAND & SONS.

October 23rd, 1883.

PRELIMINARY ANNOUNCEMENT.

IT gives us great pleasure to announce that, with the December number, we shall give the first part of a Frieze which, we have named the Bird Frieze. The Frieze consists of an arrangement of birds and plant forms, specially drawn for our Journal, and the complete design is drawn to extend over the space of fifteen feet, without a repetition. The second half of the Frieze we shall give with the January number, and with the same issue we shall give, A FULL SIZE WORKING DRAWING OF THE FRIEZE, 15ft. long by 10in. wide, printed on strong paper suitable for using as a pounce, with full description as to the various birds and plants, their colorings, and how to paint them.

We may say further that, the large working drawing will be in *addition* to the small sheets usually given. In our December issue we shall give a more detailed description.

We propose to charge 1s. for the January number, this includes the cost of the Frieze; so that, as our readers will perceive, we shall give them a full sized working drawing, 15ft. long, at something like the cost of one-third of a penny per foot—not an exorbitant price this for an original drawing. In our December number we shall state the programme we have laid out for ourselves for the new year, one which, we think, will strongly commend itself to our subscribers and the Trade. We would advise all our friends, who get the Journal through the booksellers, to order the January number as soon as ever they receive the December part.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

(ALL RIGHTS RESERVED.)

CHAPTER XXXII.—THE ART OF VARNISH-ENAMEL PAINTING, ON GLASS.

IN connection with and, following up our series of articles on gilding and embossing on glass, we now place before our readers a system of painting on glass, invented and practised by the Editor of the *Journal of Decorative Art* for upwards of thirty years with great success. By this method any number of colors can be put upon one sheet of glass without having to use lead work, or firing in the muffle; and any description of design, worked out in any number of colors and tints.

Now, we desire it to be thoroughly understood that we do not pretend to offer or to place this method of glass painting in competition, or as a substitute for what is understood to be stained glass (although the term is to a great extent a misnomer), as the staining of glass is confined to a yellow and amber stain. All the other colors we see in a church window are either flashed glass (*i.e.*, glass having a thin coating of colored glass on one side) or pot metal, that is glass all through of one colour; any other colors or shades are painted on to the colored glass. But we do claim for our process a wide field for its usefulness when properly painted and protected; when this is the case and the work is done as we shall describe it, it will, in most situations, last for any number of years. One of its advantages is that it can be worked by any person who can use the pencil, and has some knowledge of drawing; by it they can produce admirable works of art without the necessity of subjecting them to the risks and trouble of firing. Consequently ornamental windows may be done by this process by, sign writers, painters, and amateurs, in places far away from stained glass works or large towns.

Our process differs from the ordinary stained or painted glass only, in the fact that, it is done with varnish and not in vitrifying colors. The same designs can be worked in the one as in the other. There is the same wide scope for individual talent and manipulative skill, and in this respect it differs *in toto* from the many imitations of stained glass, passing under the names of Potichomanie and Vitrimanie, Glacier process, etc., which are simply colored transfers, printed and sent out by the thousand, the same patterns are used in beershops as in private houses, and thus present an obstacle to their use in good houses.

We, however, do not class our system of glass painting as an imitation; we call it painted glass, which it really is, in the fullest sense of the word, varnished colour, or paint, being alone used, without any pretence of its being anything else.

Consequently, although it looks in all but the lead work like stained glass, it cannot be called an imitation, but is in itself a separate and perfect system of painting on glass, which, when properly protected by double glazing to be described further on, may be accepted as a valuable system of glass decoration.

Hitherto all painting on glass with the exception of the vitry, or burnt-in process, has been done in oil color, painted on the glass with a brush in the manner we would paint on canvas, but with transparent and semi-transparent color, with the result that, in the very best of such work the brush marks were always visible and the color poor and shady, and as far removed from the appearance of stained glass as such attempts could well be. This failure arose from the very nature of the method used, as it is not possible to spread a transparent oil color upon glass so as to look even and regular in tone, and there is an utter absence of that uniformity of surface so necessary to produce good work. As a consequence, none but very small designs could be done on that plan. On the contrary, by our system any breadth of surface required can be covered with color, having one uniform depth or tone equal throughout. The advantage thus secured opens out the widest possible field for its application. Not only can any description of ornament or figure subject be executed by this method, but the utmost brilliancy of color and the greatest variety required to complete any description of design.

The Glass.

The foundation or fundamental principle of this system of glass painting lies in the fact that, the work is done upon ground or obscured glass, instead of the clear or smooth glass hitherto used. The grinding of the glass on one side leaves it with a more or less roughened surface, according to the fineness or coarseness of the sand or emery used for the purpose. The rough surface appears to be formed of millions of minute facets, which are acted upon by the light, and forms a capital holding ground or key for the varnish and color, or stain, to hold fast to. Now this holding ground is, of course, absent when the glass is smooth, and this has been one great cause of the failure to produce anything of the kind upon the smooth glass; hence also its liability to chip and peel off the glass. This roughness also enables us to lay almost any breadth of color evenly, unattainable without such a surface

Ground glass when seen against the light appears white with a slight grey or yellow tinge, according to the kind of glass used. This whiteness is of inestimable value to the success of our system, as it enables us to obtain effects which no other ground would. It serves to separate the various colors, and so getting the full value of them, and we also can produce gradations of tint from the most delicate to the fullest possible. Beautiful designs may be worked out with the simplest combinations of color, in fact there is no gradation of tint or tone that is not obtainable.

With regard to its permanency or lasting properties, as we have before said, in situations where it is not exposed to the effect of alternate heat and damp its power of resisting the influence of time is remarkable. We can point to examples which have been done ten, fifteen, and twenty years which as yet show no signs of decay. We have executed all kinds of work and designs on this system for churches, public buildings, staircase lights, lamp glasses, and gas globes, and, indeed, for every purpose for which painted glass is used, much of which is to this day as good as need be, while others placed in unfavourable situations have decayed.

In executing this work, much of its stability depends upon the kind of varnish used, and how it is used. Spirit varnishes are utterly useless, as they turn white and soon lose their adhesiveness. What are called oil varnishes, if they are of the very best, should only be used.

While, as will be seen, we do not claim for our system of glass painting that which it really is not, yet, we place it before our readers with the confidence grounded upon practical experience of its working, as an admirable method of ornamentation in lieu of the more expensive methods; also as a system which all who have the necessary manipulative skill may use with the greatest advantage in producing beautiful coloured designs upon glass with all the effect of stained glass, at a comparatively small cost, anywhere and in any place where the glass, varnish, and colors can be procured.

In connection with and springing out of our experience and practice of the varnish enamel painting on glass, we invented a system of painting on glass by which the most elaborate pictures can be executed, differing from the above system in the fact that the picture and designs are not transparencies to be seen by the light passing through them, but veritable pictures to be seen from the front as we view an oil painting on canvas.

Jewels, rich garments, with gold and silver embroidery, can be worked on this system with an effect and brilliancy quite unique, and withal a quietness and absence of that tawdry or garish look, not surpassed by any other system of glass painting. Elaborate figure designs will, of course, require to be done by persons having the necessary skill and knowledge. But, there is a wide scope in its practice for the reproduction of ornamental design in gold, silver, and color, with an absence of that vulgar obtrusiveness which attends all gilding and silvering on smooth glass. Pictures done upon smooth glass invariably look vulgar and out of place, and the colors hard. All this is conspicuous by its absence on the plan we refer to, the gloss of the metal is subdued and brought into harmony with the colors, thus doing away with the main objection to the use of opaque painted glass in mural decorations.

(To be continued.)

MARBLE PATTERNS.—We beg to state to the numerous applicants for marble patterns that we shall endeavour to finish another lot before the year is out, due notice of which will appear in the Journal. As we have before stated, we do not prepare these patterns as a mere trade speculation—we have enough on our hands without them—but to accommodate our subscribers; consequently we are not over anxious to sell, as it only involves an amount of extra labour we could well do without. At the same time, and in accordance with our promise, we will endeavour to supply the demand so far as we are able.



A COLLECTION OF ORNAMENTAL HEADINGS

FROM VARIOUS SOURCES.

Vol. 3. No. 35. November, 1883

BUILDING NEWS
AND ENGINEERING JOURNAL

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AND 53 58 WYCH STREET
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ART IN THE HOUSEHOLD
C. M. JENCKES

PARIS NOTES

W B SIMPSON & SONS
WALL PAPERS
FROM DESIGNS BY LEWIS F DAY

COALBROOKDALE
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SHOW ROOMS
43 & 44 HOLBORN
VIADUCT
FIRE GRATES
CHIMNEY PIECES
OVER MANTELS & FENDERS
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DECORATOR

CHURCH NOTES.

WE have before adverted to the work of Mr. Reuben Bennett at St. Stephen's, Hulme, Manchester, and now have much pleasure, in fulfilment of our promise, in giving a more detailed account of the decorations done there. We may premise our remarks by saying the church is a modern erection, being built about twelve years ago from the designs of Messrs. Medland and Henry Taylor. It is Gothic in style, though it would be difficult to allocate it to any particular period. It consists of a centre nave and two side aisles, separated from the nave by open arches supported on dwarf columns grouped together in sixes. The architectural details are somewhat bald, though the lines are good, and thus a favourable opening was made for the decorator to exercise his taste and skill upon. The broad spaces between the spandrils formed by the arches and the string-course underneath the clerestory is broken only by a flat circle enclosed by mouldings. The clerestory runs up a considerable height and is finished by a sharp-pointed roof. The side aisles are formed by a roof sloping from the walls of the centre nave. The west end is occupied by a low gallery, whilst the east end is taken up with the chancel, organ chamber, and vestry. The chancel is broken up on the right hand side of the table by the opening to the organ chamber, on the left by the vestry door, and on the chancel wall itself by a massive reredos, made by terra cotta moulded tiles, the upper portion being occupied in the centre by a large stained glass window. The reredos, to a certain extent, fixed the treatment of the chancel, and we are bound to confess that Mr. Bennett has turned what, in the hands of a less competent man, would have been a stumbling block and rock of offence, into an important and valuable feature in his decorations. The chancel ceiling is painted blue, and each bay is thrown into a panel with a large conventional flower in the centre and ornamental corners with connecting lines. These are painted in strong colours and show up well without being inharmonious against the blue ground and gold stars with which the panels are diapered.

The reredos runs up to a height of twelve feet, and above this, Mr. Bennett has placed a band about thirty inches deep which, runs round the entire walls and forms a most striking feature in the decorations of the chancel. This band is broken up with a number of squares in which are painted the emblems of our Lord's Passion, on the side walls: the squares on the chancel walls being occupied by the emblems of the four Evangelists. The space above this band on the two side walls is filled in with a diaper of *fleur de lis* in one color, finished by a broad band underneath the wall plate on which is painted a suitable inscription. The walls each side of the chancel window (above the band surmounting the reredos) are very boldly treated. Before the decorations were undertaken, these spaces were occupied by the Commandments, so painted that the keenest vision in the congregation could not decipher the writing on them. Mr. Bennett has adopted a very decorative treatment. He has spaced the wall out into three panels, a large centre one and two narrow side ones. These are formed by a flat architectural treatment of columns and arches separated from the wall by a different coloring and a broad outline, the result is a bold and pleasing division of an awkward space. The two side panels, about twelve feet high, are filled



Border top of Spandrils.

*

in with a semi-conventional rendering of a lily of which we give a sketch. As our readers will see, it is boldly drawn and, in its coloring as seen in the church, is very effective. The centre panels contain theTen Commandments. The tile reredos is very harmoniously colored and rendered admirably subservient to the general scheme of decoration. The nave is treated strongly. The soffits and reveals and a front flat to the arches are painted a creamy stone colour, and are separated from the spandrils and wall space by a V quirk. The spandrils and wall space up to the moulding underneath the clerestory are painted a light tone of Indian red, and on this are painted, in the spandrils, the very bold designs of the vine, and the passion flower we give a sketch of. These are finished at the top with the first small border we illustrate. This border divides the spandril decorations from the masonry treatment as shown in our sketch. The whole of these ornaments are in a chocolate brown on the red, and whilst they are "strong" they are at



Spandrils to Arches of Nave.



Band Stop, or end.

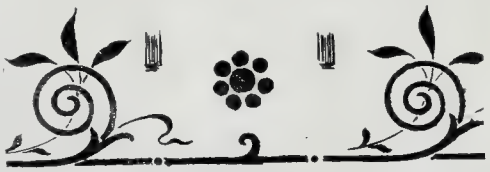
the same time very rich and quiet. The border at the top of the masonry lines is a space to receive a text or inscription and, we have to commend the thoroughly ecclesiastical character of the writing at St. Stephen's, it is at once so legible that "he who runs may read," and it has character and shape. The effect of the strong wall color against the stone color of the arches is to throw the latter into prominence and balance the deep coloring of the wall space, which is further broken up by a circular space enclosed by moulds.



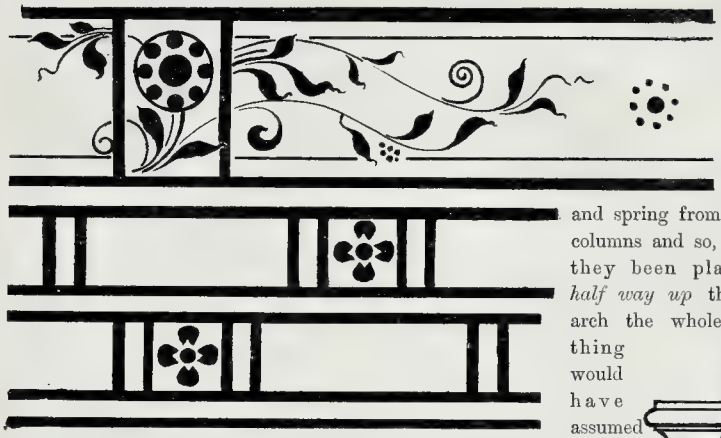
Into these spaces Mr. Bennett has placed the monograms of Our Saviour, two of which we give. These are all done in gold on a white ground with black outline, and give point and relief to the linear decoration on the walls. Of these emblems, and the remark applies to them all, the drawing is good and the execution workmanlike. It is astonishing the difference that can be imported even into well known forms like these. Some decorators either think them of such slight importance, or cannot draw them; at all events it is a much commoner thing to find them ill drawn than well drawn.

Our space will not admit of our going into much more detail, there are one or two general remarks however, we would like to make. The whole of the decorations are strong, that is to say, there is no sense of hesitancy or doubt or experiment about them, you feel that they have been done by a man who was quite sure of the rightness of his work. A second point, and one of considerable merit, is the vigour and crispness of the drawing displayed Our readers will see that from the illustrations we give, weakened as they necessarily are by a second interpretation. Another point worthy of note is the value obtained by a little departure from orthodox rules; for instance, the curly leaf of the vine, and also of the passion flower, that breaks through the boundary lines at the top of the spandrils is of great service in giving a little life to the decoration.



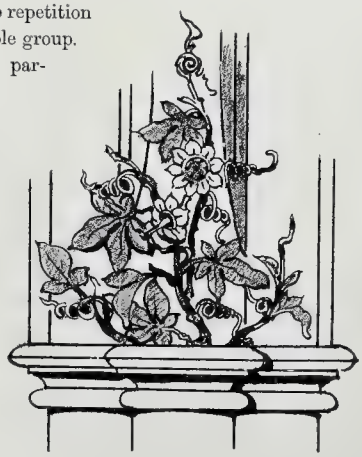


Stencil under rafters of Nave Roof.



Ashlar Treatment above Spandrils in the Nave.

This is a kind of treatment that must be used with discrimination or, it becomes a weakness; for instance, we recently saw a church, decorated by a firm of some eminence, in which a *very* conventional and solitary, spray of the passion flower was thrown on to the middle of a window jamb without any single bit of ornament to keep it in countenance. This we consider a radical mistake, and comes from a misunderstanding of the true function and place of ornament in church work. A feature at St. Stephens is the treatment of the soffits of the arches where they spring from the columns. We give a spray of the passion flower and this is alternated with the ivy, each plant being sketched *in situ*, and finished right off with the brush. There is no repetition in the whole group. We were particularly pleased with these as, whilst they break the plainness of the arch, and do not interfere with the other decorations they are points of interest for the eye to dwell upon. It may be objected that we are now commending what we have just condemned, but such is not the case. These sprays on the soffits of the arches seem natural, that is, they appear to grow and spring from behind the caps of the columns and so, justify themselves; had they been placed *half way up* the arch the whole thing would have assumed another aspect and we should have condemned, where now we praise. We are disposed to think that a greater use of blue or grey shades in the nave would have contributed to a more complete harmony. The work is harmonious now as it stands, but some cool shades would have been very acceptable and would have enhanced the effect. This is, however, a minor criticism; Mr. Bennett set himself to get a certain effect and all candid critics must admit he has attained it. Like the preacher, we find our last words extending into folios we must therefore do violence to our inclinations, and close our description by saying that we have given prominence to this work, because we are of the opinion that it thoroughly deserves it, and we heartily desire to see more work of the same class.



Soffits to Arches.



Panels on Chancel Wall



THE concluding remarks of "Peter Paletteknife" in his last month's notes were of so alarming a nature that, in obedience to orders from high quarters, I hastily packed up my portmanteau, put a little of Prout's brown and my brushes in my pocket, and took a bee line for the second city in the kingdom. I may remark here, in a parenthetical form, that, judging from my own observations, Glasgow is a very wet place, and denizens of the city itself, whose testimony is indisputable, all concurred in the opinion that if not entitled to the exact description I've given it, it may at all events own up to being decidedly humid.

P. P. has in a former number of your journal alluded to the decorations at the Central Station Hotel, and as I made this my head-quarters during my short stay, I shall not be repeating a twice-told tale if I give a few notes of my own. I can heartily endorse all the encomiums paid by Peter to Mr. John Orr for the ability with which he carried out his contract. I was particularly struck with the good effect obtained in the corridors on the ground and *entresol* floors with the single-print paper and a bold stencilled frieze, which, through the kind permission of Mr. Orr, I am able to forward to you for reproduction. I don't remember seeing a more satisfactory result obtained by such simple means. The whole work tones admirably with the stained and varnished pine work. Another success scored by Mr. Orr is in the treatment of his flock papers. I send you a slight sketch of the flock, but this only shows the design, and does not give the relief and shadows. Both papers were manufactured at Messrs. Brown



and McLaren's, of Stirling Road, Glasgow. They are painted all over in varnish colours, and then the pattern is rolled in dead and relieved with gold. At once quiet and decorative, they claim attention and win praise. By the way, I also had a look in at Mr. Orr's show rooms, 101, Wellington Street, where he is now fitting up some specimens of Lincrusta Walton, which he is decorating with considerable taste. As our American cousins would say, Mr. Orr, means biz.

Looking in at Messrs. McCulloch and Sons' stained glass works, St. George's Road, I saw, amongst many other good things, two panels painted on maple and sycamore, in light transparent stains and outlined. One had a full-length figure of Kingsley's hero, Hereward, as the centre-figure, and a small head of Martin Lightfoot, with his trusty axe upon his shoulder, underneath. The drawing and painting of these subjects was very clever, and the ornamental accessories to them were not a whit behind in general excellence, both in design and execution. I have not for a long while seen anything that has pleased me more. Messrs. McCulloch and Gow have just completed a job below Newcastle, which I understand has given great satisfaction to their clients. Whilst at it, I may mention that ere very long the two branches of the firm's business will be united under one roof in new and commodious premises, an arrangement which will contribute very much to the economical working of Messrs. McCulloch and Gow's business.

Generally speaking, Glasgow decorators have had a very good season's trade, though the genius of grumbling is so much abroad and so rampant that even here one hears faint echoes of discontent. Mr. Stevenson (not the gentleman at present soliciting the suffrages of the citizens of the South Side, but Mr. Stevenson, of Hope Street) reports a fairly successful year's trade, and prospects of more to come.

Mr. J. F. Edgar, also, has had his fair share of business in the year just past, and is apparently well content with what he has done. I had the pleasure of seeing the designs sent in by Mr. Edgar for the decoration of the large first-class refreshment room at Carlisle Station. The work is not carried out as designed, but if it had been the result would have been satisfactory in the extreme. The design which Mr. Edgar carried out at the Royal Princess's Theatre, was on view at the Sanitary Exhibition, and was much admired.

Speaking of theatres reminds me that I recently saw the Lyceum at Edinburgh opened by Irving a few weeks ago, and decorated by Bailie Hall, of St. George's Street West. The vestibule, staircase, and *foyer* are very successfully treated, and without resort to any extraordinary means. The vestibule is divided into two, the dado being carried a considerable height up the wall, and divided from the frieze by a picture mould.

The dado is hung with Japanese paper, a large vine pattern, leaves and fruit in dark colors and gold, the upper part being hung with a golden bronze Japanese paper, finished with a narrow frieze belonging to the cornice, and the plaster ornament being picked out white on a golden yellow ground. The effect is very good.

The staircase I consider especially good. The dado, about three feet deep, is filled with Japanese papers, with a decided pattern in dark colors. This is surmounted with a wooden rail painted in two reds and one member light, and above this is an intermediate space, hung with one of Woollam's mica papers, this extends up the staircase, but the landing is finished off with a third paper about six feet deep from the ceiling in shades of light reds; and on this is stencilled, in suitable colors, the two ornaments roughly sketched here.* The effect of these on the paper is unique and merits considerable praise. The wall space in the *foyer* is divided into two. The top part is filled in with a very deep frieze of Tynecastle tapestry worked up in green and gold, the lower portion of the wall being hung down to the skirting with Japanese paper, a large pattern but quiet in color. The ceiling is panelled out in relief, and the modelled ornaments gilt and part burnished form an agreeable and quiet contrast to the tones of buff and cream of the plain surfaces. The inside of the theatre itself is very pretty. The decorations consist mainly of gilded relief work on light grounds. I venture to think the effect would have been enhanced if, the walls had been done with a lighter paper approximating to citron or deep old gold, though perhaps this criticism would be modified if I saw the place full of people and lit up. Altogether the Bailie is to be complimented on his work, as tasteful, without being ostentatious.

Mr. James Clarke, of George Street, Edinboro', has in hand a very important job in Palmerston Place, and I was favoured with a glance of some Tynecastle tapestry in process of completion, destined for the drawing-room. When carried

* See next page.



out in accordance with the section I saw it will make a remarkably beautiful room. The wall to about the height of seven feet is divided into a series of spaces, somewhat after the shape of a lancet window, this form is made by the ornament. The spandrils and space immediately above this is filled in with ornament and finished with a frieze. The panels are filled in with a floral plant all in tapestry. The general impression it gives one is of Indian or Saracenic work. I should very much like to see the completed room, and feel sure it will be one of the most decorative and successful jobs done in recent years.

Messrs. Dobie and Son are in the happy condition of having more decorative work in hand than they can at present overtake. Messrs. Dobie are doing some very excellent work just now, and are on the point of completing a church in Kensington Palace Gardens, London, of which I shall send you a description in a later number. The same firm have recently finished an important job at the Westminster Town Hall, a description of which I shall also endeavour to supply your readers with, and possibly a sketch or two. A hasty run through the designs in the portfolios and a survey of the drawings hanging on the walls, sufficed to show that Messrs. Dobie were abreast of the age and its requirements.

I must now say *au revoir* to Edinboro', though loth to leave, and turn my face in the direction of St. Mungo. I'm afraid that I've left myself little space to deal with the Sanitary Exhibition, but without further delay will plunge *in medià re*. I would observe (again parenthetically), that the Sanitary Exhibition has a deal to answer for. It had attractions and counter attractions, and one distinguished gentleman, innocent of Scotch customs, after an incursion of knights of the brush from Dundee, incontinently fled across the border. Only the other evening a cold-blooded rumour circulated through the hall that another well-known gentleman, distinguished in "press circles," had joined the ranks of the Scottish Temperance League; the rumour, however, was received with scepticism by most who heard it, and their unbelief was vindicated by the gentleman in question denying the soft impeachment with appropriate and modest disclaimers.

It is a most difficult thing indeed to say anything about these exhibitions that has not been said before, time after time, and I've seriously thought of suggesting that, for future exhibits, you adopt the plan of naming the article or firm, and then giving a list of all past references to them, there would be advantages all round. To your subscribers, inasmuch as their time would not be taken up reading what they have read before; to yourselves, because, the space thus gained could be employed in another way; and to your advertisers, because all praises of their goods would thus be focussed and concentrated. However, I will not adopt the plan on this occasion, but will reserve it for another time. The Silicate Paint Company have been so far considerate of the exigencies of pressmen, as to provide them with a peg to hang their remarks on, in the form of a very cleverly decorated little room, done by Messrs. McCulloch, of Glasgow. Outside of the room were shown the products of the firm in their manufactured state, and specimens, painted in plain colors, showing the covering power of Charlton White *versus* white lead, also specimens of "Duresco," in various tints, and numerous and brilliant examples of Charlton enamel in different colors. Of Charlton White, I can say as I have said before, that with the improvements which Mr. Orr has introduced into its manufacture of recent years, the trade has a really valuable white pigment. Only last week I had it on the testimony of one of the principal Glasgow employers that it was invaluable to the painting trade. Inside the stand we come upon a novel departure from ordinary exhibits; this is a room decorated in Duresco, it is not possible for us to say anything further on behalf of this beautiful distemper, or tempera, and so I'll content myself with describing the decorations. The ceiling is done a plain cream with lines round, underneath the cornice is a frieze made-up of square panels occupied with heads representative of the months, and connected with festoons of fruit and flowers.

The wall space is coloured a plain light terra cotta shade, and the dado done in red and ornamented with panels, alternating large and small, the large ones treated with a decorative rendering of bamboo and palm leaves, the small panels decorated with a floral plant; the *ensemble* was very good indeed. Round the walls of the room were hung coloured drawings of various jobs executed by different decorators in Charlton White. Amongst these was a very pretty drawing of an entrance hall to a mansion at Loch Long, executed by Mr. Wm. Stevenson; Messrs. Dobie's drawing for the Theatre in Glasgow was also shown.

In the room was a folding screen shown by Mr. Edgar, decorated by Mr. J. Finley. The work on it was highly creditable to Mr. Finley's powers as an artist.

Near to the stand of the Silicate Paint Company was that of the Lincrusta Walton, decorated by Mr. John Orr, of Wellington Street, and a very pretty and attractive stand it was generally. Mr. Orr had confined himself to simple treatments, and in this we think he was wise. Lincrusta does not do with half treatments, either a simple treatment in plain colours, or a very elaborate decoration, and, except in very rare cases, we prefer the former. The stand itself was divided

Stencilled Dado Border at Lyceum Theatre, Edinburgh.



into three walls—two ends and a back wall. The back, or main wall, was treated as a dining-room, and above the dado was hung with the Renaissance pattern, No. 123, painted red and varnished, the dado being hung with the Japanese pattern, No. 139, painted dark chocolate. The centre of the wall was taken up by a very fine mantel in American walnut, with panels of Lincrusta Walton. One of the end walls was treated as a staircase, the other as a drawing-room. The staircase side had the same dado as you gave an illustration of last month, with the upper part filled in with a brick pattern, designed to correspond with the dado. The drawing-room wall was hung with the top part of the flower pattern, No. 121, and the dado with the Japanese design, No. 129; the top part painted a maize colour, plain, and the dado a light red. The ceiling was divided out into panels with a light moulding and filled in with Lincrusta Walton, No. 264 pattern, painted a light grey. On the stall were a number of separate stand screens decorated in a more elaborate manner, and a folding screen, treated in metal, and transparent colours, was very striking

and effective. The whole stand did Mr. Orr credit, and will no doubt bring him and the manufacturers considerable profit.



Immediately behind this stand was that of Messrs. Woollams & Co. The exhibit comprised an excellent range of their well known papers, two of which I send a slight sketch of. The first, printed in two reds, comes out very richly. The second, in stone colours on a dull blue ground, has a damask effect, and makes a very chaste room as a wall filling in combination with other papers. The whole stand was a grateful change to much that was around it, and was representative of the high-class work associated with Messrs. Woollams's name.

Messrs. Griffiths, Berdoe, and Co., Limited, the Sanitary Paint Company, made a bid for public support in a good show of their well-known materials. Griffiths' Patent White was exhibited in many forms, first as showing its superiority in covering power over white lead, of which point we think there can be no doubt, and second as showing its resisting power to the



influence of deleterious gases, some specimens being exhibited having one half painted with genuine white lead, and another half painted with Griffiths' White. The specimens had been submitted to the influence of sulphuretted hydrogen gas and, the half painted with the white lead was turned a dark smoky brown, while the portion painted with Griffiths' White retained all its original whiteness. The company also showed specimens of their washable distemper in many beautiful tints, and some painted specimens of their enamel, which has a considerable reputation for its hardness and brilliancy. On the stand was exhibited the white pigment in its unground state, and various non-poisonous colors made by the firm to work with their white. At another part of the stall was exhibited the petrifying liquid made by the company, showing its water-resisting and turning capacity in an unmistakeable manner. Altogether, the exhibition demonstrated that the company are keeping pace with the times.

The general exhibits were much the same as I have seen elsewhere many times, and I don't propose occupying your space by any description of these, as they are not pertinent to your purpose. From what I heard the exhibition has been productive of business to the exhibitors, and has been well attended by those who, came with the express intention of doing business. Before I leave the

"Land of the mountain and the flood,"

I may mention that Mr. Brown, of Dundee, has just completed an important job at the new University Buildings that have recently been opened in that town, of which, more next month.

W. W. o' THAT ILK.

OUR ILLUSTRATIONS.

WE this month present our readers with six pages of illustrations—two single pages and two double pages. Our readers will find a reference to the two single pages in another part of this number. We need only say here that the paper design does credit to those who designed it and to the manufacturers who made it. The design showing a section of wall decoration was shown at the recent Sanitary Exhibition at Glasgow, by Messrs. J. B. Orr and Co. (the Silicate Paint Company), and executed by Messrs. McCulloch and Gow, of Glasgow. It was executed all through in Duresco, and is a further proof, if proof were needed, of the decorative capabilities of that material.

The two double pages are headings to various journals and the subjects treated of in the said pages. These head pieces are collected from various sources both English and American, the majority being cut from the *Art Amateur*, a very useful and admirably managed American monthly, published in New York, the get up and printing being quite equal, and so far as these headings and the type are concerned, very much superior to most of our English work. There is a sharpness and clearness of outline and richness of detail in all these examples which do great credit to both designer and printer. To the sign writer, the lithographer, and engraver, and numerous other art workmen, these two sheets will be a source of inspiration in the suggestion of designs and in the arrangement of letters and their embellishment with ornament.

SHEET No. 1.

The examples on this sheet are all taken from the *Art Amateur*, the American journal we have spoken of above. It will be seen that the artistic talent employed in the designs is of the first order. We would draw particular attention to some few of the examples



WALL PAPER, AND STENCILLED FRIEZE

as showing a marked and pleasing departure from the usual methods of treating these subjects.

In the first example are given the tools with which the artists produce the picture and which furnish the gallery and studio, the palette, brushes, and mahl stick being used to give meaning, while at the same time forming a suitable object for the connecting word "and." The second, fourth, and sixth lines are good examples of an ornamental arrangement of letters very much used at the present time, and although they are printed in a class of letter somewhat difficult to be read, except by the expert, they are for all that capital examples of the style.

We may just notice No. 3 for the wonderful freedom which the simple scroll line gives to the whole design. It shows how little is required to give grace and beauty to an otherwise stiff composition.

No. 5 is an admirable example of the best and most artistic arrangement of letters in relation to the subject of which it is the heading. Ceramics, sometimes spelt with a "k," is here clearly indicated by the design, each letter occupying the centre of an ordinary dinner plate, every one of which is ornamented with a different pattern, the background upon which they rest being composed of tiles. We think this example equal to anything we have seen, as it emphasises the word by putting it upon the representation of the actual thing.

No. 7 is a passable example of what we may call an ugly letter.

No. 8 is a very good arrangement of a somewhat unreadable letter, highly ornamental, the scroll work not interfering with its readableness.

In No. 9 we have an example of a similar character to No. 5, in so far as the design is adapted to the subject. The letters forming the heading are placed on a background which no one can mistake for anything but ornamental needlework, being a kind of network with flowers embroidered upon it, and, although the letters are in a great measure of a needlework character yet they are quite easily read. The white edge round the black letters effectually separates them from the needlework ground, without this white line they would not be nearly so distinct.

No. 10 is another beautiful example of the adaptation of means to the end, inasmuch as while the letters are quite readable and ornamental we cannot mistake the character of the background upon which they are placed—it is eminently suggestive of a lady's dress, her fan and bouquet of flowers being auxiliaries.

We cannot speak too highly of these samples of the artistic talent employed upon this journal, and we have not a shadow of doubt of their being found useful by our subscribers. The capital letters on this sheet will also be of use.

Sheet No. 2.

In this sheet we print a number of headings from English journals and trade advertisements, giving a variety of different arrangements which will no doubt be very useful. It will be seen that the style of our English examples differs very materially from the American ones. There is a stiffness and formality clinging to them which we do not find in the latter, our English examples being, in almost every case, pervaded by a set mediævalism which gives them a very solid look, but there is an absence of that freedom of line prevailing in the first sheet, which gives to the foreign examples so much grace and beauty; neither is the printing so good.

The first example is the well and widely known heading to the *Building News*. We do not know that there could be a better design for the purpose. It is admirably designed, and the style has been copied very extensively. But even in this we see that stiffness and set character we have spoken about, the arrangement is, however, excellent.

The heading to the *Furniture Gazette* is an attempt in the same line, but without a fraction of the merit of the *Building News*. It is of the stiff, the stiffest.

The heading of the *Builder* is a most excellent rendering of the black letter type. It is readable, the letters being distinct and not crowded together. The ornament on the background springs naturally from the letters, it is graceful in form and thrown about with great freedom, and does not interfere with the letters, and is also in character with the style of the letter—a very important point this in any such design.

The example (*The Decorator and Furnisher*) is the heading to another American publication. The chief merit of this example lies in the graceful freedom of its arrangement in conjunction with the peculiar style of the letters.

The remainder of the examples on this sheet are composed of tradé advertisements taken from the *Building News*, *The Builder*, *Architect*, and other publications. In these, we may note, that in some of the specimens in addition to the letters we have pictorial sketches of the work advertised, notably in those of Jones and Willis, where a man is represented as carving, and another as fixing metal work; and in that of Simpson and Sons, in which various operations in connection with tile making, painting, and fixing are represented. The others are chiefly remarkable for the arrangement of the letters.

The lessons to be derived from these two sheets are numerous. In the letters themselves we have a variety which cannot fail to be of use, and in the arrangement of them we have a great number of designs eminently suggestive. Where ornament is used it is used with great judgment and artistic taste, the one great feature of all these being that the purpose for which they have been designed is never lost sight of, namely, the most important information to be conveyed to the reader is made the most prominent feature of the design—the name of the firm or individual, and the thing or article in which they deal or manufacture. We commend them to the careful study of those of our subscribers who are engaged in sign writing, lithographic engraving or printing, &c. To all we hope they will prove of value as examples and suggestions in designs and arrangements of letters, &c.

To neglect advertising is like resolving never to travel by steam or communicate by telegraph. It is to close one's eyes to the light, and persist upon living in perpetual darkness.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 405.)

CHAPTER XXXIII.—LAPIS LAZULI.

THIS is a beautiful blue stone or marble found principally in China, and Thibet, and occasionally in Europe, and on account of its valuable properties and the intrinsic value of its constituent parts is much prized. It is only found in small pieces, and is used as an inlay with other marbles and gems. Its characteristic features consist of various shades of blue, from a very deep rich color to a grey, called ultramarine ash. It is veined occasionally with seams of gold ore, accompanied with streaks and small patches of white. The stone is crushed and its various parts separated and ground to an impalpable powder and, has been used by the old masters in their paintings, and is as pure now as when done hundreds of years ago. As a blue it is the most perfect yet discovered, all other blues having either a green or purple tinge when placed beside it. Until the factitious or French ultramarine was discovered by Monsieur Guimet, the eminent French chemist, the pure ultramarine from the stone was the only blue of real value in painting.

In imitating Lapis Lazuli, it may be worked either on a white or a blue ground. In the latter case we paint the slab a tint of ultramarine blue of the lightest tint of the marble. We then put on this some irregular veins and spots of white, softening them with the badger. When this is done. we put in here and there patches of darker shades of ultramarine, using it in some places almost pure. When this is dry, we give it a coat of egg size, just as we prepare a signboard for gilding; then use either oil or japanner's gold size, and put in some irregular veins with it, these having a lead either across or lengthways of the slab, some very fine, others thick and thin. When ready, they may be either gilt or bronzed. We now take a dark vein color, made with burnt umber, Oxford ochre, and a little red. With this and a pencil we put an irregular line at each side of the gold veins, crossing them in places, and breaking them up a little, so as to give them the appearance of the gold being mixed with earth or other metal. This will also take away any tawdry or garish look the gold may have. A few veins may be put in and across the blue spaces, and when dry, a little glazing with pure ultramarine will enrich the work.

It will be understood that this marble, on account of its color and rich veins, can only be used in small quantities, and for inlaying.

MALACHITE.

Another green marble (if it may be so called) is Malachite. In the International Exhibition in Hyde Park, in 1851, there was a magnificent pair of folding doors, formed of this marble, sent by the Russian Government. This magnificent example was formed by fitting and cementing a large number of small pieces, which were so cleverly joined as to make the whole appear as one piece. Malachite is a natural carbonate of copper, varied in aspect by the presence of lime, &c., and often darkened in parts by the conversion of the carbonate into the peroxide of copper. It is found principally in the copper mines in Russia, and is very rarely found in large masses. It is veined in irregular circles, just as we see an onion when cut in half, but not so regular, and more opaque. These rings are of varying shades of green, mixed with white, principally of a cool emerald tone. Here and there are dark spots, somewhat like rough ore; these being principally at the side from which the circles appear to spring, and from this side spring a sort of straight white rays or strokes.

It may be imitated in the following manner:— The ground color must be white. We mix a rubbing-in color with emerald green and light chrome green, adding a little Prussian blue, to give it that peculiar tint of green which pervades the marble. We rub the work over with this very bare, and then take a one-inch or half-inch camel-hair or sable overgrain, dip it into turps, open the hairs with a common large-toothed comb, and with this form a succession of irregular rings of the size required, and keeping each in form, so that they will all run in the same direction. In doing this, they should be carefully watched and dabbed with a clean rag whenever they are inclined to run out of form. While it is wet, we use a small badger-hair softener, and soften the veins outwards from the centre. Where the overgrain has failed to continue the circles, or where they have been broken, they should be pieced up with the pencil. When it is dry, parts should be glazed with the green, and then scumbled with the white.

(To be continued.)

LESSONS IN TILE AND CHINA PAINTING.

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(Continued from page 401.)

AFTER the colors, the mediums with which they are mixed come under our consideration. The essential qualities of a medium for enamels are that, acting as a vehicle it shall facilitate the laying on of the colors on the surface to be decorated and, remain moist or "open" a sufficient time to enable them to be freely manipulated, and that it shall contain no ingredients which cannot be evaporated or burnt away in the firing. Many oils answer this purpose, and many compounds are sold, but the only mediums that are absolutely necessary, and which are the best are simple and inexpensive. Sometimes the colors are mixed in oil and sometimes in water. The oil most

in use is turpentine, thickened by exposure to the air, and this preparation is called "fat oil" by professional China painters; ordinary turpentine is used as a dilutent.

In order to prepare fat oil of turpentine, a small quantity of turpentine (a few teaspoonsfull) should be poured into a saucer and left exposed to the air. In time a portion of the spirit evaporates, leaving a residue of thickened fluid, to this a little turpentine should be added every day. The greatest difficulty lies in the first production of the oil; the increase is afterwards greater, as the quantity increases. The manner of its formation is somewhat curious. Instead of remaining in the saucer it "creeps" up the sides over the edge and down the outside to the bottom of the saucer where it accumulates in drops which, finally fall into the saucer beneath, for it is usual to arrange two or three saucers one above the other as this is the manner in which fat oil forms. The saucers should be kept in a warm dry place. The formation of the oil in cold damp weather is very slow. An excess of artificial heat in no way assists its preparation, which is also retarded if too much turpentine be added at a time, or if shut in a cupboard or too carefully covered as a protection from dust. The dust and dirt will be found to settle at the bottom of the oil, which can be used from the surface or poured off in a bottle as convenient.

Oil of aniseed, oil of lavender, and oil of tar, are the principal remaining mediums used over glaze. Oil of aniseed used with fat oil, instead of turpentine, is invaluable for the purpose of keeping the color "open" when it is necessary to work slowly and deliberately. Oil of lavender possesses similar properties but is less generally used. The oils of tar and lavender thicken by exposure. The turpentine, used by the artist, and which is generally left exposed in the jar containing it, becomes in time more oily, and, owing to its creeping propensities, it will be found, that in a day or two, the vessel in which it is placed becomes sticky all over. Turpentine which has been long exposed should be added to the fat oil in the saucers, and need never be wasted, for although it may seem very dirty after it has been used for cleansing brushes, it will be found to get perfectly clear after standing a few hours, as the enamel colors all sink to the bottom. Oil of tar keeps open, perhaps, longer than the other mediums. For mixing it with the color it is desirable to thicken it much in the same way that fat oil is prepared, some of the same oil in a thinner state being used as a dilutent. It is largely used in the Potteries for flat tints and all sorts of simple work, as it is far cheaper than aniseed. The expense of supplying a hundred hands with the latter medium would be very great. Its disagreeable odour is a drawback, and as it does not set so firm as fat oil color, and is apt to dry filmy, it is not so good to paint over. Their odour is always, more or less, disagreeably perceptible, but there are certain mediums advertised as being odourless and which may be worth a trial to those who have an especial objection to this drawback.

When enamels are mixed in water, a little gum or sugar is necessary to cause them to adhere to the surface of the pottery, as otherwise the slightest touch would remove or smudge them, but sugar is much better than gum for overglaze work, as it is less liable to peel off or "split up." Either loaf or moist sugar may be used, the latter is perhaps preferable as the color remains in a slightly softer and more workable condition. In warm weather, when flies are about, work executed in sugared color should not be left long uncovered, as in their fondness for it they eat the sugar (apparently color and all). A good sized blue-bottle may so far eat a small Cupid's head off, as to considerably injure the work and cause some wonderment as to the cause of the patchy appearance of the color. Enamels are now sold in tubes ground, both in oil and water, and the water-colors are recommended by the vendors as having no disagreeable smell. It is not possible, however, to complete delicate underglaze work in water color alone, as the the parts cannot be again worked over with the same medium without the washing up of the under colors, and their real depth or strength does not show when mixed in water. But the execution of some kinds of work is greatly facilitated by doing the outline in water and finishing up in oil color; it being an advantage that the outline can be removed in parts or corrected or made finer, with the point of a penknife or sharp pointed stick. In this way much of the drawing and modelling can be delicately indicated in such a way as to be of great assistance when the whole is gone over and painted up in oil color. It is perhaps a little difficult to describe the exact quantity of medium which should be mixed with the colors in powder, but these directions may be found fairly satisfactory. Place a small quantity of fat oil (about the consistency of treacle) on the palette, then with the palette knife squeeze as much colour as possible into the oil so as to form a stiff cohesive mass (it is better to have too little than too much oil), and dilute with sufficient turpentine or aniseed to bring it to the consistency required for grinding.

With regard to the quantity of sugar to colors in water let there be just, and only just, enough to fix the color so that it will not rub or smear if the finger be passed lightly over it. An excess of sugar makes the color work more smoothly, but increases the risk of its peeling off or blistering, especially in places where the color is laid on thickly.

Turpentine, fat oil, and aniseed, for oil and sugar, for water colors, are all the mediums required for nearly all overglaze painting. The fat oil can generally be bought where the colors are sold, but the aniseed is not quite so generally known or sold as a medium. It can be obtained at the chemist's, and should be unadulterated. Ordinary turpentine, which is commercially pure, is all that is required; it is, of course, cheaper, and usually sufficiently good if procured from the oil and color shop. Rectified spirits and expensive mediums are by no means necessary, and the elaborate manner in which such preparations are got up, bottled, and labelled, is a matter of amusement to those who know a little about them and certainly of profit to those who retail them.

(To be continued.)

[*Erratum.*—In the sentence in last month's article, "We do not say the colors of any one maker are *sufficient* to produce good results," the word "sufficient" should read "insufficient."]—Ed. *J. D. A.*

TRADE INTELLIGENCE.

We have been conscious for some time past that the obligations which a "powerful, progressive, and independent" journal was placing the Decorating Trade under were, almost insupportable in their weight and number. But surely the climax was reached in the last issue of this so-called progressive journal when through its accredited writers it discourses on "Symbolism" in decoration, in the following language :—

"In ecclesiastic decoration symbolism by means of emblems is carried out to a greater extent than is the case with other branches of the decorator's art, and in most instances these emblems are in themselves explanatory of Biblical texts. Therein lies the true meaning of emblematic decoration. Thus upon an apse, or on the ceilings forming the under portions of side galleries, we often see depicted a lily—the connection is at once apparent to us "consider the lilies, how they grow, &c.," in another place we have a lamb, "feed my lambs," in another a dove, "and he sent forth a dove," &c.; while at another part is the cross, the passion flower, and the grapes—their connection with "the cross and passion" and the "true vine" immediately takes the mind to the texts of Holy Writ in which all and every of these objects are severally referred to, and thus they become really emblematical decorations in every sense of the term."

We think we know something about the Painting Trade and its requirements, and, as representing a considerable and important section of it, we embody the gratitude that is welling up in many hearts to the *Plumber and Decorator* for the accuracy and originality of its "information."

These are days when, those who profess to instruct their fellows, on any subject, must have a further qualification than mere pretence, or they must be prepared to submit to the inevitable ridicule that will come upon them. We would suggest to our contemporary a course of systematic study on Christian Iconography and the whole subject of Symbolism with a view of further amplifying the valuable and original line of thought which we have ventured to quote from their invaluable columns.

The fag end of the season has been reached. The weapons of our warfare are laid aside and the Trade is looking forward to a long and quiet winter. There are a few shops in which this state of things is, happily, not the case, but generally speaking the position is as we report it. It is the one great drawback to the painting trade that, its operations are so unequally distributed. A great rush and hurry at one season, and a period of absolute stagnation at another, bad alike for master and men, and yet we see no way out of it. The resort to the shorter hours system has not in any way operated in the direction it was hoped it would, and we are to-day as far off as ever apparently from the painters' millenium when, there shall be neither summer nor winter seasons but, one great season extending from January to December.

Mr. G. Godwin, F.S.A., has retired from the editorship of the *Builder*, after an active connection of thirty years. Mr. H. H. Statham is Mr. Godwin's successor. To Mr. Godwin, very largely, the *Builder* owes the fine position it occupies to-day. The first of the papers of its class in point of age, it has always maintained the premiership in authoritative handling of the complex questions connected with the building trade.

ANSWERS TO CORRESPONDENTS.

W. J., Frankford, Ireland.—The best method of procedure to etch a lamp chimney with the white acid will depend upon what you mean by the word etching; if letters are to be done upon it, if the letters are to be matt and the rest of the glass clear. We should paint the glass all over, with the exception of the letters, with the Brunswick black, inside as well, and when dry dip the glass into the acid bath, and proceed as described in our former instructions on this subject; but if it is the letters which are to be clear and the rest of the glass frosted or matted we simply reverse the process by painting the letters alone, with the Brunswick black. If the glass is required to be etched in fine lines with ornament or figures then, the Brunswick black must have a little bees' wax melted in turps and added to it, and when the black has set hard enough, but before it is really hard and brittle, the design must be formed or traced upon it, and the black must be removed with a steel or iron point such as the end of a knitting-needle, the point of a penknife, or a piece of hard wood for broad lines cut to a square end of the width of the lines required. Any combination of fine and coarse lines can thus be executed, and when finished dip it into the acid bath for the necessary period of time to effect the purpose. All such forms as gas globes, lamp chimneys, &c., cannot be done without the bath as the acid cannot be put on with a brush. Russian tallow is the cheapest material to use for walling-in the acid. Bees' wax and the tallow may be mixed together, both may be used again and again, so that the first cost is made up by its frequent use. Charlton white may be used for all and every purpose for which white lead is used, and it is non-poisonous.

In answer to your second note, dated October 8th, we beg to say that we do not in any case require an apology when our subscribers seek for any information we can give. On the contrary, we feel it a pleasure to be able to clear away any difficulties they may meet with in doing any work we may describe in this Journal.

With regard to the design you wish to execute you will find the solution of your difficulty in the system of etching proper we have described above, and also in previous articles. Extraordinarily fine lines can only be done in that way, except by printing, as done in the Potteries, especially if the design is too fine to be done with the pencil. The pink-tinted glass you refer to would very likely be the flocked glass. The pattern is printed upon the clear glass with an ordinary stopping-out ground, and then brushed over with the obscuring mixture used for the white enamel glass stained pink. The glass is then put into the muffle and partially vitrified. In firing, the printed pattern is burnt off and dusts off the glass, leaving it bright and clear against the dead semi-transparent pink ground. One word with regard to your trying to emboss glass. You say, "I am determined to succeed if possible in producing a tolerable piece of embossing or etching." We commend the spirit with which you work, and assure you that working in such a spirit you will be sure to succeed. It is the only road to success. Unwearying effort and constant practice will alone serve to attain the object in view, and we heartily bid you God speed.

Wolverhampton.—You have one remedy in your own hands, *i.e.*, don't use the size too strong another time; if you use common colors, add a little honey or common treacle. But for a small drawing, 16 × 12, it would be best in every respect to use the ordinary water-colors, Winsor and Newton's, or Rowney and Co.'s, these you can spread evenly upon a small surface, and be sure that they will not chip or peel, as they contain the size or gum in themselves; and in producing broad washes or tints, as well as solid color, cannot be equalled by any color you can yourself mix. But in treating large surfaces, ordinary distemper is the most appropriate, or dry white lead ground in size or milk.

Improver.—A full description of how to make the crayons for marbling will be found in the August number of the journal for 1882.

JOSEPH MASON & CO.,
MANUFACTURERS OF
VARNISHES, PAINTS, & COLOURS,
5, Derwent Street, and Burton Road,
DERBY.

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WALL DECORATION IN DURESCO,

Exhibited at the Sanitary Exhibition, Glasgow, by

THE SCALLET PAINT







W. Sutherland, Invt.



A. A. S., Delt.

DESIGNS FOR "ROSE DOOR."





The Journal of Decorative Art.

REGISTERED FOR TRANSMISSION ABROAD.

HEAD OFFICE: 15, ST. ANN STREET, MANCHESTER.

MONTHLY.] DECEMBER. [PRICE 7d.

"Remember therefore always, you have two characters in which all greatness of Art consists:—First the earnest and intense seizing of natural facts: then in ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great Art is nothing else than the type of strong and noble life."—*Ruskin.*

NOTICE TO OUR SUBSCRIBERS.

WE beg respectfully to draw the attention of all our Subscribers who subscribe direct to the Head Office, to the fact that we wish all Subscriptions for 1884 paid in the form of Postal Orders, Post Office Orders, or Cheques, and not as heretofore in Stamps. Attention to this will be deemed a favour.

THE "inaudible and noiseless foot of time" has brought us to the end of another year, and in closing the pages of our third volume we cannot refrain from taking a glance back on the past, and lifting the veil of the future to the extent of indicating the lines of our action in the coming year. It is with feelings of great satisfaction that we look back upon the three years' work we have been enabled to accomplish. When first we launched our frail craft on to the wide sea of public favour our chances of success were problematical, and our most sanguine expectations did not soar to the measure of success which, thanks to the liberal support accorded us by the painting and decorative trades we have been able to attain. During the year now closing upon us we have given no less than five double-paged colored sheets, produced in the highest style of the lithographer's art. We have, in addition, issued thirty-five pages of ordinary illustrations devoted to decorative work (all original designs and belonging exclusively to this Journal), illustrations which, judging from the letters we have received, have been most acceptable to our readers and subscribers. We do not enumerate these for the purpose of magnifying ourselves or our work, but to show that, we have in a large measure kept faith with our undertakings. Our success has arisen from this fact and the further one that, the technical articles and descriptive processes have been written by men qualified by a long experience to discourse authoritatively on the subjects they have handled, and have thus formed a marked contrast to the professed instructors, but in reality, blind guides, whose lucubrations adorn the pages of some of our contemporaries

With the January issue for next year, we take a new departure in the history of English trade journalism in the form of

FULL SIZE WORKING DRAWINGS.

If the experiment meets with the approval of our subscribers, we shall be disposed to consider the continuance of it at stated intervals during the year.

With this present number we commence a series of

FLORAL DOOR DECORATIONS

Consisting of designs having single flowers as the *motif* for each door. Thus, the one given this month is the "Rose" door; in January, we shall give the second design, the "Lily" door, and so on during the year. These will be issued in successive months, and will be accompanied with full description of the flowers, their colors, and how to paint them, &c. The designs are drawn to fit a panel 36 × 7, and so arranged that they can be extended to fit a larger, or curtailed to suit a smaller panel. We anticipate that our subscribers will find these of very great service to them in the ordinary course of their business. To meet the convenience of any desirous of having them ready for working, we are issuing them full size, suitable for a trace or pounce and a stencil to lay them in solid with. Particulars of these will be found on the back page of the Journal.

Early in the year we shall ask our readers to accompany us in the painting and decorating of a good-sized middle-class house, in which we will begin at the beginning, and carry out the various works in the best and most economical manner, in the course of which we shall give a description of how to decorate the principal rooms in three different styles of decoration, Greek, Gothic, and Renaissance. This will give us an opportunity of showing how the various works should be carried out; what colors to use, and how to use them; the best methods of gilding, stencilling, lining, graining, papering, &c., as they ought to be done, in order to make a good job, and including every room from the cellar to attic. We thus hope to put together a complete compendium of valuable information for practice and reference, omitting no detail necessary to the elucidation of our subject, and sparing no labour in making it as complete as possible. Another series of articles no less important will be commenced in the January number; these will be devoted to—

CHURCH DECORATION

and will deal with the subject in a thorough and comprehensive manner, treating both of church and chapel decoration, and accompanying the letterpress with lithographic illustrations, original designs, and copies of old work, whichever is most pertinent to the particular branch of the question under consideration at the time.

We have also arranged with a number of gentlemen in different centres in the country, to forward us month by month items of intelligence likely to be of interest to the large

body of our subscribers. This feature of our New Year's work will, we think, be of especial interest to our readers and the decorating trade.* It will thus be seen that our bill of fare is no mean one, and that our intention is to make our Journal still more useful in the dissemination of all matters of interest pertaining to the painting and decorating trades in the future than it has been in the past.

A feature in the new year of great interest to our subscribers will be a reproduction of the side of

A DINING ROOM, DECORATED IN LINCRUSTA WALTON, IN COLORS AND GOLD.

This sheet will be of the most valuable description to the trade, and will be well worth framing and hanging up in any showroom. We shall also at the same time give exact directions as to the colors and methods used to gain the effects shown. We anticipate that this will make the most beautiful colored sheet we have yet given. We hope to publish it with our March number.

TECHNICAL CHAPTERS ON THE VARIOUS PROCESSES USED IN THE ART OF HOUSE AND CHURCH PAINTING AND DECORATION.

(ALL RIGHTS RESERVED.)

CHAPTER XXXIII.—THE ART OF VARNISH-ENAMEL PAINTING, ON GLASS.

HAVING said in our last chapter all that was necessary as an introduction to the above process of glass painting, we now proceed with the actual work, and in order to make our instructions clear and practical, we will take an ordinary staircase window, and carry it through from start to finish in exactly the same manner as we have ourselves done large numbers of them. We were first led to practise this method by accident. We had been grinding some color in water upon a piece of ground plate glass, with a glass muller, and had left some of the color upon it, and when we required the glass to grind another color we found the greatest difficulty in cleaning off the previous color; in fact, there are some colors which take so firm a hold of the rough surface of the glass that we have been compelled to use diluted hydrofluoric acid to remove them. This fact generated the idea of staining the glass and afterwards varnishing it, and so from one step to another until the process became complete.

* Our articles on Sign Writing will be given at intervals, until completed, and our Technical Chapters and Chapters on Glass Painting will also appear month by month during the year. We shall likewise give our readers from time to time, descriptions of works in progress, with sketches, much in the style of "Church Notes," "Caledonian Jottings," of last month.

THE STAIRCASE WINDOW.

The staircase window here shown is one of a simple character, which we painted some years ago on this system. We have chosen it in the first place as not being too elaborate for a first attempt, and to illustrate the full method of working. It will be observed that the top portion has a slight curve. In ordering the glass for this both the top centre square and the border squares at top will have to be cut to fit exactly. This is best done by furnishing the glass-cutters with paper or wood templates or patterns of the curved squares. It is the more necessary for this to be done, as it is so easy to make a mistake and not to find it out until the



work is finished, and thus all the labour may be lost. Experienced men even are liable to make mistakes at times, therefore the novice will require to take extra precautions to make sure. The other squares should be correctly measured, allowing a little play, as if a square of glass fits too tightly it is apt to crack when heated by the sun's rays, which causes it to expand. The glass being all right, we shall now require a design for our window. The choice of a suitable design is, of course, an important one, and will be influenced by what kind of window is required—whether a memorial window, a heraldic one, or simply an ornamental one. For our purpose we have chosen the latter. As our example shows, it is very simple in its lines, and may be executed by any one having command of the pencil. In

getting out the design, we cut a piece of lining paper to the size of the centre squares of the window from top to bottom, and mark the position and width of the cross-bar or wooden sash. Paper patterns will also be required of the several parts of the border squares.

To many of our readers who are plumbers as well as decorators this information is superfluous, but it is intended for those who do not cut glass themselves.

Having in another part of this Journal described the methods we use in getting out working drawings in connection with stencil work, we do not think it desirable to go so fully into the matter as we otherwise should. But as there are some of our subscribers who may not have that description, we are compelled to describe it, so far as is necessary to a thorough understanding of our subject.

Designs for glass, as a necessary consequence, require a somewhat different style of ornament to that used for any other kind of decorative work. Glass, wood, stone, iron, and earthenware all require a separate character of design, *i.e.*, that character or style best suited to the nature and capabilities of the material. Glass painting for windows which are intended to be transparent, or semi-transparent, require a special treatment, differing altogether to paintings upon an opaque surface, and as the light must pass through it in order to see its beauties and define its form, we have to take into consideration the effect of the light upon the color and outlines.

If we look at a church window fitted with stained or painted glass, the whole of which is composed of separate pieces, bound together by bands of lead, these being from a quarter to half an inch in width, we find that, in looking at the window against the light, we, in a great measure, lose these broad lines or bands; in fact, we do not see them as lead bands, that is, when they are skilfully used, they being so arranged as to define the outlines of the various parts of drapery, &c.; but this effect is more especially increased by the passage of the light, it having the effect of dwarfing, or rather, causing the lines to look much thinner than they really are. Outlines that would look too broad and clumsy if done on a picture or on a wall decoration are, when put upon painted glass, found to be too thin, and look poor and meagre.

Again, painted glass, as a rule, is seen at a much greater distance from the eye than other works of art, and on that account alone requires stronger outlines and a bolder treatment; therefore, in designing for glass work we must keep these facts in mind, as much of the success of this work, or in fact any decorative work, depends upon their suitableness to the material upon which they are done and the position they have to occupy.

After having decided upon our design—of which, by the way, it is best always to make a small sketch first, that is, to rough out our idea of what we intend before we commence the working drawing, this gives one something like a definite idea of what we are going to do and saves time; but whether we do this, or sketch right on to the large paper, we proceed as follows:—We take the lining paper pattern of the centre squares and fold it up lengthways, and sketch our design upon one half of it with charcoal, which may be purchased in sticks from the artist's colourman. When the one half of the design is sketched in we fold the paper in half as before, with the design inside, and then rub the back of the charcoal sketch well with the flat of the hand; this rubbing will cause a portion of the charcoal to adhere to the other half, and so form an equal sided design which will enable us to see the general effect, and by dusting off the charcoal from any part that is not satisfactory, we can re-sketch and rub those parts as before, and when complete, we may slightly dust off the charcoal, but not completely so, and then go over the whole and carefully draw in the lines as we wish them to be and prepare them for the glass. This may be done in two ways, firstly, pricking through the lines with a stout needle or with prickers made on purpose (which may be obtained where the charcoal is bought), or the design may be strongly outlined upon the charcoal sketch either in ink, quick colour, or with the charcoal itself. All designs for glass should be broadly treated. Strap ornaments or bands enclosing centre ornaments are suitable, or lines and corners, with a centre design of a shield or medallion having a coat of arms or a monogram. In due course we shall give other examples of windows that have been executed by this process. The border design should be designed, drawn, and prepared for working in the same way as for centre; but as borders are, as a rule, simply repetitions of a section of ornament, we draw that section and repeat it for the length required. Corners or pateras being of course drawn separately. This fact will be plainly seen in the border on our example which is a flat-sided Guilloche, having a ball in the centre of each section. The centre squares are filled, but not crowded, with a conventional ornament practically springing out of the line or band which also form the corner ornaments at the top. The design being now ready for working, we place the glass flat upon a bench, or table, with the ground side up, and if we use the pricked pounce, we tie up a little charcoal, ultramarine blue, or Indian red in a bit of fine muslin, and with this dab over the design and then rub the bag gently over the drawing, this will cause the powder to pass through holes made in the paper by the needle, and will be distinctly seen on the glass, thus forming a plain guide to work by. But if we use the outlined design we place it underneath the glass, and it will be seen through the glass sufficiently to guide us in outlining.

(To be continued.)

MARBLE PATTERNS.—We have just completed one dozen sets of Marble Patterns, nine of which are already disposed of. Persons desirous of securing one of the remaining three sets must make application at once.

As many of our subscribers have either not seen or forgotten the sizes and names of the Marble Patterns, we beg to say that they are done upon Academy boards, and framed to protect the edges with one inch square white deal frames. The size of the two staircase marbles, viz: Sienna and Italian Pink, are 26in. by 20in. The sizes of the other four patterns are 26in. by 11in., these are Rouge Roi, Breschia Ficario, Bardiglio, and Pyrenean Green. We do not pay carriage; but this rarely amounts beyond 1s. or 1s. 6d.

SCOTCH NOTES.

(NO CONNECTION WITH "CALEDONIAN JOTTINGS.")

I WAS surprised to observe on returning from my holidays in the West of a portion of Scotland that, an invasion of my territory had taken place. Is this only for a short time, or for altogether, or what does it mean? Who is this Caledonian Jotter, with nothing in his pockets but brushes and Prout's brown? Had he no other "browns" in his possession? I suppose he would think the correct way to *do* Scotland was to come without money, and I fervently hope that, so far as you are concerned, he came without price.

Whoever he is, he has not only been *doing* Scotland, but he has been doing it a great injustice. What does he mean by saying Glasgow is wet and humid? Who made him an inspector of towns, of atmospheres, and of peoples? But he is not even content with this outrage on Glasgow, and he attacks the manners and customs of people belonging to an Eastern seaport, and suggests that they are also wet and humid. Now, Mr. Editor, take my solemn word of honour so far as it goes. I give you my assurance that I have met these gentlemen many a time and oft in the stilly night, aye, and by day as well, and they never took half so much as myself. This assurance is worth something, as my most intimate friends can testify to the fact that, I never go a step beyond the bounds of excess.

Now, having given vent to my righteous indignation at this "W. W. (Will o' Wisp) o' that Ilk," I should like to say that, with the exception of his intemperate temperance ideas, I rather admire him. There is no denying the fact that his article of last month is full of literary and artistic beauties, and I would like to see more of this illustrious illustrator if he would only reform and give up teetotal lecturing. His sketches of the work he saw in Scotland are very pleasing and full of interest to the trade, and I can show him dozens of good things to reproduce when he can spare a few days to return. I feel sure that now he has given us a taste of what he can do, you will not lose sight of him, and I would suggest that you might cause him to reproduce a few of your own decorative contracts of which we never see or hear anything.

I have not got sufficiently settled down to give you any reports this month, but I have several items in embryo, and you will hear of them in due time. A friend has kindly handed me the annexed cutting from the *Lennox Herald* regarding a church recently done by Mr. Williamson, of Alexandria, Scotland (not Egypt), which I know you will be glad to notice:—

"The painting of the building has been done by Mr. R. C. Williamson, of Alexandria, in a very creditable manner. The design is good, the workmanship exceedingly tasteful, and the general appearance of the church has been greatly improved. The main ceiling is divided into 23 panels, painted pale blue, with a corner ornament and lines on each, and dividing styles of cool buff, with tints of a darker shade round all the edges. Where the styles cross each other there is filled in a neat ornament. The centre flower is painted in chaste colors, hatched with gold. Three belts or bands run round the entire ceiling inside of the cornice, the centre one being broader and filled in with a wreath of leaves. The cornice is plainly painted in pale shades of buff, picked out with red. A frieze, 15 inches deep runs round the entire church immediately underneath the cornice. The walls are painted in cool shades, the under ones being darker and divided by a dado in several tints crossing the end over the pulpit and running round the passages in gallery. The window recesses are done in a shade of pink, and have a nice effect. The under walls are lined with a pattern every 30 inches, and an ornamental dado in quiet colors extends along above the seats. The gallery front is painted in very light shades, relieved with gold, the panels being filled in with a light colored ornament. The seats have all been re-stained and varnished. The staircase walls are painted like the church with a dado of deep brown, having ornament and lines. The hall and session-house have got an overhaul, while the outside of the building has been repainted. The entire building has a very lively and cheerful appearance."

There is good stuff in Mr. Williamson, and how he has got fixed in such an outlandish place is a mystery to

PETER PALETTEKNIFE.

P.S.—Remember me to this Caledonian Jotter and Joker, and assure him that a Scotchman can see a joke and stand it like a lamb, in spite of a Lamb's* assertion to the contrary.—P. P.

* This is a somewhat sheepish joke of P. P's., but our knowledge of that versatile gentleman's disposition compels us to insert it lest a worse thing should happen.—Ed. J. of D. A.

LESSONS IN TILE AND CHINA PAINTING.

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(Continued from page 419.)

THE principal requisites for pottery painting, are, a small slab and muller for grinding the colors, a few white tiles for palettes, a palette knife, a handrest, and a set of good brushes. For ordinary purposes a thick piece of ground glass, about 10in. square, is the most convenient for mixing the colors on. It may be of use to mention that it is an easy matter to produce a ground surface to glass by simply rubbing it over with emery powder and water by means of a little flat piece of glass held between the fingers. A little muller, an inch and a half in diameter, is a convenient size. If tube colors only are used, the slab and muller are not required; and even the colors in powder can be rubbed up with the palette knife alone, as those which are now retailed in small quantities are ground extra fine. It is, however, much more satisfactory to use both slab and muller, as the ground surface of the glass affords a tooth which greatly facilitates the operation of grinding, and enamel white, yellow, and turquoise blue are apt to be perceptibly discolored by a too free use of the palette knife. Sometimes a bone or ivory spatula is used for grinding delicate colors of this kind. A small, flexible palette knife is far more handy for manipulating small quantities of color than a large stiff one: it gathers up the colors more effectually, and with less fatigue to the hand but, of course, will not stand the rough work of rubbing up, or remixing colors which have set hard. A hand rest is a piece of wood about 18in. long, and 2in. wide, having a small piece of wood attached at each end in such a way that a bridge is formed which raises the hand about two inches above the work. This arrangement gives the hand greater freedom, besides protecting the painting from rubs or smears. The long sides, or edges, of the rest should be smooth and straight, as straight lines are "run" by holding the brush perpendicularly and drawing it along, steadying it against the side of the rest, which serves as a guide or rule. Another sort of rest, in general use in the Potteries, consists of a broad piece of wood, about 3ft. long, and 10in. wide; one end is loosely fixed to the table by a screw or bolt, two-thirds of its length projecting over the edge, and sloping downwards. This serves as a support for the right arm and hand, the painter being conveniently seated by the side of it; the article to be decorated being held in the left hand can be freely turned about and held in the position most convenient. Experience shows that the most comfortable position in which to place our work is not flat on the table, but on a strong, sloping board, as the necessity for stooping is then partially obviated. It is desirable that this board be firmly fixed, or hinged, and so arranged that the angle of elevation can be varied at will. It should also be wide, as otherwise it frequently happens that whilst

absorbed at the painting, the end of the rest is unconsciously brought too near either side of the board and, suddenly slipping, causes one to dab the brush on the work in an intensely aggravating manner. Circular plaques and pieces of pottery of varied shapes are often placed nearly upright and worked at with the mahl stick. Among other mechanical aids we must not omit to mention the wheel used for describing circles.

The wheel commonly used in the Potteries is of wood, and in shape not unlike a tall music stool. It consists of three parts, two of wood and one of iron, arranged thus—an upright block of wood having a hole down its centre rises from a tripod foot, the lower half of a sliding iron rod sinks into this hole and is elevated and fixed as required by a strong screw. The lower half is square and the upper half round. At the top of the rod is a depression which receives a pointed pivot on which the wheel turns. The upper part of the wheel consists of a circular piece of wood about ten inches in diameter and three inches thick, supported by a round wooden upright, having a hole up its centre which receives the upper half of the iron rod. The article to receive the lines is placed on the flat circular top of the wheel and of course centrally. This is accomplished by a dexterous touch or two with the fingers by those who are constantly engaged at running lines, and indeed the necessity for their expertness is obvious when it is considered that these liners receive a price of between a penny and threepence per dozen for doing such lines as we see on white and gold saucers and cups. For running lines in this way, the right arm and hand are placed on the sloping rest, just described, and the wheel being brought conveniently under the right hand which holds the brush, is revolved by the action of the fingers of the left. The whole construction is solid and heavy, and therefore less likely to be accidentally tilted over with a piece of ware upon it. The top revolves freely when oiled, and its weight regulates or steadies its momentum when in action. A good wheel lasts many years, and costs about ten shillings. A different and dearer sort of article was originally produced for the use of the public; but there is no reason why, with a little ingenuity, one should not make (or get made), an efficient substitute, the only essential being that the construction revolves freely and truly on a fairly fine axis. The wheel is sometimes called a "whirler," or "whirling table."

Camel-hair brushes are best for general overglaze painting; all varieties of size and shape are useful. Extra long fine-pointed brushes are required for outlining and stippling, and are known as outline or writer brushes. A small outliner of sable hair is very useful, and some kinds of work can be done very well with good sables, such as are used for painting in oils. For laying flat tints of color, brushes of camel hair which come to a square edge, instead of a point, are best. The ordinary "dome-pointed" brushes, such as are used for painting in water-colors, are not of great use for enameling, as they give a "spiky" kind of touch, but are occasionally useful for finishing up or stippling; which, however, can usually be done equally well with a full-haired camel-hair outline brush. These outline brushes vary in length and thickness, and an assortment of different shapes and sizes of brushes should be obtained. The laying on and manipulation of enamels may be said to partake in some degree of the nature of modelling; the colors, being of varying thicknesses and consistencies, require to be judiciously worked and "tooled" in all sorts of ways to meet the requirements of the work in progress, and therefore brushes of various shapes are necessary. There is also great difference in the qualities. Brushes used for enamels do not last long, and bad brushes knock to pieces or lose shape in a very little time. To choose a brush it is not necessary to wet it. It is necessary that a brush used for flat tinting should come to a clean straight square edge, and to ascertain if this be the case, pick out a full-haired shapely-looking brush, and press the hairs firmly at the root, near the quill, between the thumb and finger, till they spread out into a wide fan-like shape, and if they then appear of uniform length, and come to a clear circular fan-like edge, with no irregularities, the brush may be considered good. By judging in this manner one can look through a number of brushes in a few moments, and so choose the very best, which the shopman will not always allow if each brush be wetted. The general appearance of an outline brush when dry should be a sufficient guide in choosing, for if a brush be full-haired and well-shaped, and the hairs terminate uniformly, it is almost sure to be a good one when wetted. Small, thick, short-haired brushes, called "dabblers," are used for laying flat grounds; and a softener of badger-hair is sometimes made use of.

Having so far described the principal requisites, mediums, and colors necessary, we will now endeavour to give a few hints and directions as to their use and the method of manipulating them. Directions have been given as to the quantity of medium to be added to the colors, should it be found necessary to obtain them in powder. In grinding on the slab the muller should be revolved in small circles round the sides of the slab, in such a way as to continually drive the color towards the centre, as it is obvious that if the reverse be done and the color worked out to the edges, it would be necessary to scrape it to the centre at every few turns of the muller, and the free use of the palette knife is not desirable. Care should be taken not to make the color too sloppy, especially as with aniseed color it would remain in that state, and spread over the palette, and fill with dust.

Messrs. John Line and Sons, of Reading, send us a very excellent little book of tinted linings. It also contains a choice selection of varnished oaks and tile papers. It is just a convenient size for putting in the pocket to show a customer. Messrs. Line will send one on to any of our subscribers on receipt of trade card.

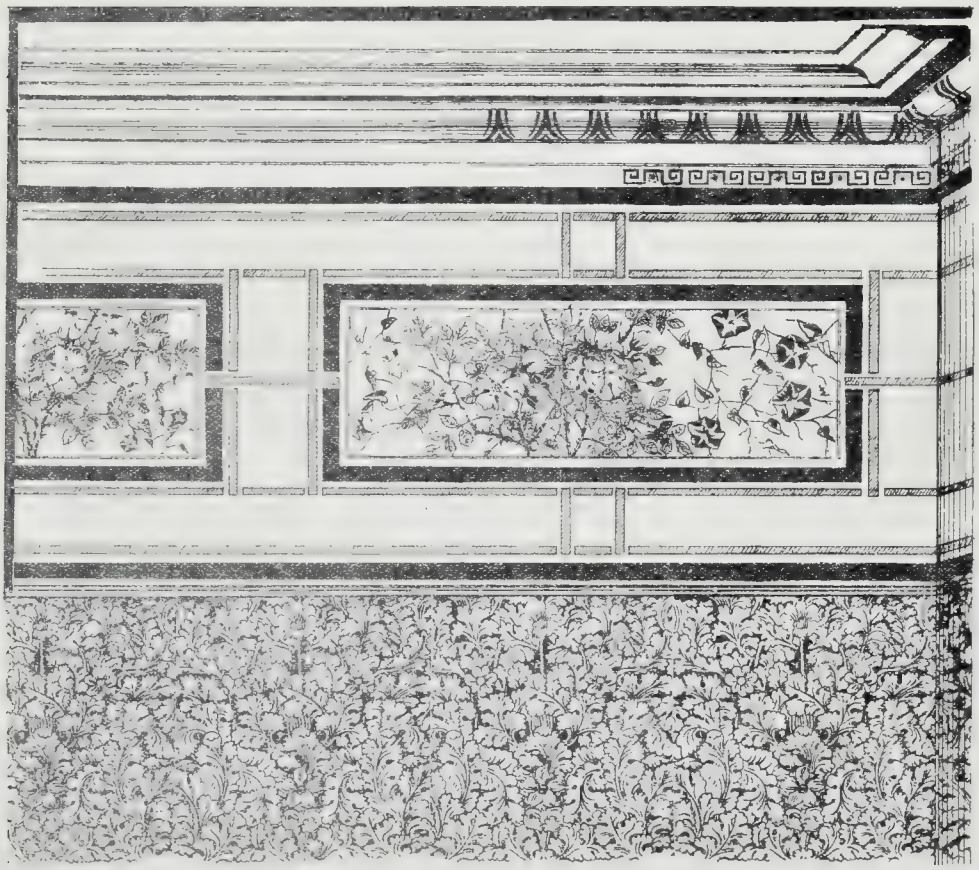
"Time-Sheets."—We invite our subscribers to kindly post us a copy of their "Time-Sheets," and we will, after carefully going through the lot, print the one we consider the most useful and that answers the purpose best, with the name of the firm we receive it from, and forward the sender a bound copy of Volume III.

ITINERANT JOTTINGS.

THE question of how to make the most (in a decorative sense) of our small, ordinary-sized houses, at rentals ranging from £30 to £50 a year, is one that has not received the attention that it deserves. The generality of such houses are quite destitute of any signs of taste in their decoration, the occupants being either entirely indifferent to such matters or destitute of the requisite knowledge to prompt them to desire anything better than the usual stock treatment of drawing and dining rooms accorded to such a class of house. I recently saw a room in a house of this description, which, though done in a very simple manner, pleased me very much. The room was about 13×13, and was of the ordinary description in point of details, but the manner in which these had been used and turned to advantage was very satisfactory, and shows conclusively that given a little taste a great deal can be accomplished on a very small basis. The room I speak of was a "back" sitting-room, and had been converted into a small drawing-room.

The woodwork was painted black, and the moulding of the skirting next the paper done in two reds. The panels of the door were painted a dark dull greeny blue, and on these were planted smaller panels highly decorated with flowers, the moulding round this inner panel being gilt. The walls were hung to a height of about eight feet with one of Cotterell's papers, in two shades of terra cotta of a medium depth. This was finished with a picture mould, which separated the wall from the frieze. I took the liberty of sketching a bit of the frieze and cornice for the benefit of your readers, and will supplement my sketch with a slight description.

It will be seen that the frieze is set out in panels. In the room these panels are distributed, three on each wall, and are supposed to represent The Seasons. The panels themselves are painted a light greenish grey tone, and on these the flowers are painted in a natural treatment. The styles surrounding



the panels are of the deepest shade in the wall paper, a kind of dull red; and I would remark here that a deep or dark colored frieze *does not* lower the apparent height of a room, but, contrary to the generally received notion, adds to it, and the same may be said of a cornice. This can be tested at once by any of your readers the next cornice they are tinting. If they will paint one portion of it darker than the wall color or about the same tone, and another portion lighter than the wall color, they will at once see that, whilst the latter brings the ceiling *down* to the wall the former carries the wall *up* to the ceiling, and thus all the difference in effect is wrought.





W. Sutherland, Invt.

A. A. S., Delt.

DESIGNS FOR BIRD FRIEZE. PART I.

Vol. 3. No. 36. December, 1883.





This is important where any one is dealing with a low or comparatively low room, as the sense of loftiness can readily be imparted to it by the aid of a little color. Pardon my digression, but I could not resist the temptation. The frieze I said was a dull red, of a terra cotta shade about the depth of a light brown brick, on this were two lines, the lighter one being done the same shade as the panels of the door (a blue green), and the darker and broader one a deep chocolate red. The effect is very harmonious and quiet, the strong lines balance well the light colors of the panels, which, I should have stated, were finished off with a small half-round gold bead. The treatment of the cornice was equally satisfactory. The first flat was painted in the same color as the frieze, and on it was stencilled in black the little "fret" ornament I show in my sketch. The second flat was done a deeper red than the first and left plain, and the moulding below the small cove was painted a buff tone and stencilled on, as shown, in deep red, the same as the dark line on the frieze. The cove was painted in a shade of the light line of the frieze, only lighter, the little fillet above it being done a lighter shade of the frieze color, and the top mould and flat running off in lighter shades to the ceiling, which was done a dull blue grey tint.

I have bestowed some little pains on my description, as the room struck me as being a capital instance of the use of simple means. The two stencilled members carried the eye well up and stopped at a natural resting place in the cove, whilst the tapering off of the upper members into the ceiling color avoided any sense or appearance of that severance of wall and ceiling we not unfrequently see.

By the way, your readers cannot but have observed the strong revulsion that is taking place against the tertiary browns and greens of a few years ago, and the way the growing taste for positive colors is asserting itself. I recently saw a large house in one of our wealthy suburbs in which the rooms were all done in plain colors in Duresco (I think), and the colours ranged from strong golden yellows to the deepest and most positive reds, and though if (without seeing it) I had been asked my opinion I should have hesitated to endorse such a treatment, I am bound to confess that I never saw a more charming or tasteful result than it presented. Of course, the crudities of both reds, yellows, and blues, were softened down somewhat.

The ways of municipalities are somewhat difficult to follow and comprehend. I heard of one the other day, representing a town of over 170,000 inhabitants, sending out for estimates for washing down the large room of the Town Hall—a room I should say about 45×30×28ft. high. They had a number of tenders sent in, and, of course, accepted the lowest. Your readers will not be surprised to hear that the room looked a great deal dirtier after the cleaning process than before, when I tell them that the contract price was the magnificent sum of £4 10s. Public contracts are rarely let on their merits. I remember one within the last twelve months for another Town Hall, where the choice ultimately lay between a firm of good repute in a large town adjoining and a local man who had no credentials whatever for such important work. The political influence of the latter, however, secured him the job, with the result that part of the work had to be painted out twice, and, as it stands now, is the best condemnation of the man's incompetency that could possibly be. The job was quite outside and beyond his power and the result is failure.

Bradford is a very important town, and from a number of reports to hand, all agree that it is one of the best towns in the North of England for painters and decorators. Messrs. Harland, and Messrs. Pratt and Sons, are both very busy for the time of the year, and are doing some very good work. One of the reasons I have heard assigned for the general prevalence of good work is, that by the system of letting property in vogue, the tenants undertake to do all repairs and beautifying, hence a better and higher level of work is obtained. It is some time since I was in that town of wool, but the first opportunity that presents itself I shall run over, and give your readers the benefit of what I see and hear.

I hope in your January number to give you a note or two of Messrs. Dobie's work at Westminster and Kensington that I alluded to in my letter of last month, but I have not yet been able to get round there; meantime I must join in wishing you a prosperous New Year.

W. W.

OUR ILLUSTRATIONS.

THE illustrations for the present month consist of two double-page sheets. The first being reduced examples of three lengths of the BIRD FRIEZE announced in our November number. The other three lengths will appear in the Journal for January, 1884, along with the full-sized drawings of the whole frieze, making a total of 15 feet. A full description of the various birds, with the proper colors to use, and how to work them will also appear in the same number.

Our second double-page sheet contains two panel designs for the ROSE DOOR spoken of in another place, being the first of a series of door panels, each door design being formed with one kind of flower, combined with suitable ornament. Our next design will be the "Lily" Door, followed by other popular flower designs, so arranged as to size that they will either fit an ordinary door panel, or may be enlarged to fit a larger panel or reduced to occupy a smaller one.

As will be seen, our present design consists of a vase, out of which springs a stem bearing the foliage and blossoms of the wild rose of our hedgerows, commonly called the dog rose. It is essentially a summer flower. Shakespeare called it the "canker Flower;" the canker being the mossy excrescence we often see on its branches, vulgarly called the "fairies' pincushion." In the Midland shires the name "canker" is still given to it, but the rose is the common dog rose as it was in the time of Cæsar's invasion. The rose of the Roman general was most likely the trailing white rose, the veritable white rose of the Yorkists; the long sprays of which extend several feet from the small bushes on which it grows. The rose was common in our woods, and was so plentiful in the Lancashire forests as to give its name to one portion of the county—Rose-in-dale (Rossendale).

In painting wild roses we have a wide range of tints for the flower, from pure white to strong pink-red, and through all the gradations between the two. There is also great variety in the foliage, as there are eighteen different kinds of wild roses. If we decide to paint the design in its natural colors we could have no better guide than a branch of the plant itself, and as that is easily procurable, especially in summer time, we would advise those intending to paint the design as it is in nature, to paint from the living plant, as no pen can describe the varying beauty of stem and leaf, flower and bud, as it is in reality; nor can any amount of description convey to the mind, the play of light and shade, the gradations of tint and form, that the living plant will supply. Some of the leaves will be of a bright and vivid green, some of a sombre hue, while others will be of a faded green, combining green, yellow, red, and purple in one leaf.

A very excellent effect may be got by painting this design in a semi-natural style and in flat tints, in doing which, we would either pounce and paint

in the flowers and buds or stencil them in in the mass, with a color made from madder lake and white. The leaves would be done in the same manner, using two or three different shades of greens, the small ones and those at the extreme ends of the branches being of a bright yellowish green, the others being done with greens having a little Indian red and burnt umber mixed with them in varying degrees so as to give variety. The stems also may be done in two colors, the principal ones being of a reddish brown made with burnt umber and burnt sienna, and the smaller ones with the same color but redder and lighter in tone, the line enclosing the design may be done in the dark stem color. The vase would be done of a metal color, either gold, silver, or bronze; the background of the ornament in the centre part of it may be dark blue, black, or green, leaving the ornament of the same color as the rest of the vase. The ground color of the panel may be of almost any dull neutral tone. Buff of a sober hue made from ochre and umber with a little black added, a dull neutral green very much lighter and subdued than the leaves, or a dark brown or black ground would be suitable. The whole of the leaves, flowers, stems, and vase should then be outlined with a fine black, or dark brown line according to the color of the ground, or the flowers may be outlined with a dark line of madder or even purple lake. This applies of course to a perfectly flat treatment, but if we decide to give a more finished effect by shading, this can be done while the work is in this stage, not with an imitation of the natural effect, but a conventional treatment. In this case we may put half of each leaf in from point to base, shade color, this may be either a transparent shade or a solid body The shadow color made with raw sienna and burnt umber—but only as much of the latter as will deepen the sienna to the required shade or tone—or raw sienna and blue-black may be used for the stems; burnt umber alone may be used, and for the flowers a glaze of madder lake. There are of course many other ways in which these designs may be treated, such as gilding the whole of the work on any colored ground and outlining with black, or painting them in monotone, that is, in various shades of the same color as in greys, neutral greens, buffs, cameo color, &c.

These designs are 36in. by 7in., and this is the general size of the top panels of an ordinary house door. The bottom panels being between 14 and 15 by 7. In order to alter these designs to fit a large panel we have only to widen and lengthen the fret line upon which the vase stands and carry up the fret at the top, the centre design remaining as it is. In order to shorten the design both top and bottom fret may be dispensed with, or we can omit the bottom one and keep in the top, but let the vase rest upon a straight line at the bottom. The latter arrangement must be followed for the bottom panels, and the foliage and flowers up to the first rose on the one design with the vase must be used for them, or, which will perhaps be an easier plan, just as much of the top part of the design as will occupy the lower panels may be arranged to fit into the vase which will stand upon a straight line at bottom of the panels, and should they be wider and longer than the design they must be worked in the manner described for the top panels. There will be some few other of these designs which will spring from different kinds of vases. These we shall so arrange that a different vase can be used for each panel of a door, they being of the same height. This is not absolutely necessary to the success of the design, but gives variety and in that respect is perhaps an advantage.

ECHOES FROM THE TRADE.

Sir,—The poet sings—"Music hath charms to soothe the savage breast," but in my own particular case there is nothing equal to the monthly advent of *The Journal of Decorative Art* in soothing certain bloodthirsty sentiments which frequently find a lodgment in my bosom. A regular subscriber from the first, you have not a warmer admirer than myself on your lists, though I feel very wicked in not having given you a token of my appreciation ere this; but, Sir, I have a ready excuse: I live, and work, in Rivermouth, and thereby hangs a tale, and therein also lies the explanation of the ferocious feelings alluded to above. If you need further proof let me ask you to peruse the subjoined lines "dashed off" by your humble servant the other evening to vent a storm of wrath engendered by a dirty day's work:—

THE PAINTING TRADE OF RIVERMOUTH.

We mess up our work and scamp it, Sir,
From morning until night;
And the Painting Trade down here, Sir,
Is in a fearful plight;
I am disgusted, and declare,
With dreadful indignation,
Work must improve, and masters move
In a clearer and more honest grove,
Or here's for emigration!

Our masters are always seeking to rob
The party from whom they get the job;
And they make one coat do service for three,
In fact it is nothing but d-a-u-b.
Then they brag, bully, stamp, and swear,
And always call us lazy,
And everything is done to time,
Without reason, decency, or rhyme—
It almost drives us crazy!

These masters are most awful screws,
Too many of 'em like their ". . . . " Sir,
And they make a great dash
With their ill-gotten cash,
As they've no reputation to lose, Sir.
Some will paint their fronts up smart,
Embellished with much gilding,
Others invest in bricks and sticks.
Add some tricks, and in six—
Or seven weeks—
Have run up a jerry building.

Ah, Sir! it is a sad, sad thing
To see such dreadful scamping;
But masters still go on the same
Spite of my fitful ranting.
Yes, sir, the master-men down here,
Disgrace a decent calling,
They drive us in, and wink at sin,
Their only aim filthy lucre to win,
To honest men it's galling.

But enough of it all, I am sick of it, Sir,
It's nothing but daub and smudge;
And a decent workman here, Sir,
Changes soon to a miserable drudge.

Then painters all, in search of work,
Oh, pray don't come down south,
For if you do, then you will rue
The luckless day when first you knew,
The Painting Trade of Rivermouth.

Our jerry buildings and monstrosities in architecture have lately been well advertised by some stinging articles in the columns of some of your contemporaries, but I opine that the painting trade here is more open to attack, and a satirical writer might steep his caustic pen in the gore of our iniquities with small fear of saying too much. However, it is of your Journal I had intended to write, and I wish hereby to convey to you my most grateful thanks in return for the great aid your Journal has been to me; but I am truly sorry that there is not more scope here in this town for carrying out the tenets taught and the excellent designs given in it. If a fellow can handle the big brush in a ruffianly style, it is about all that is expected or required of him in this place. But, as intimated in my ranting medley, it is not my intention to drudge here much longer, for, having seen good work, it is my aim to be "at it" again. Among other jobs, I may mention that I have worked, viz., at Eaton Hall, the new palatial residence of the Duke of Westminster, having worked there for the well known London firm who carried out the greater part of the decorations in that noble mansion. Speaking of this, it may be interesting to add that the late head of the firm in question came here, something over a year ago, for the benefit of his health, and, while here, the poor gentleman was taken seriously ill and died in a very sudden and unexpected way. He was a good man and true. I believe the last job he superintended, prior to his decease, was the decoration of a church at or near Hughenden, which decoration was carried out as a memorial to the late Lord Beaconsfield.

This is a miserable place altogether, and even the gentry, when wanting their places done up, seem to be infected with the popular local mania for cheapness; and, when that is not the case, the master-painters (oh, I beg their pardon, they *all* call themselves "decorators") make a point of scamping the work; hence those who really like their work done well, get down a London firm to do it.

I have executed two or three small jobs with designs taken from your journal—mostly door panels. It would have been highly ludicrous to you, Sir, had you seen and heard the expressions which escaped our "gaffer" and some of the fellows on seeing the first door I did here, they never having seen anything of the sort before. The door in question was filled in with the designs given in your number for January, 1882.

Of the things I most highly prize in your Journal, I think the colored plates come first; and next the designs for room decoration (including ceilings), with description of treatment in color. This, *I* consider one of the most useful features of the Journal, and one which I hope you will be able to repeat as often as possible. As I had occasion to remark in a letter, some time ago, to a contemporary of yours, "What we mostly need is good designs, with instructions for treatment in color. *Design and Color.*" This combination is only attainable in the *J. of D. A.* Your articles on graining and marbling are most eminently useful and practical, far and away the best and most complete I ever read, and those are not a few. I do but little graining—in fact it is a department I have no liking for. As a practical writer of some years, I take especial interest in your articles on sign-writing, which will, I am sure, when complete, be thoroughly exhaustive of the subject. You have promised to give some examples of "setting-out," which will be especially useful to novices and, probably, to the experts as well. While speaking of promises, I would like to call to your mind that, in an early number of your journal, you gave a Greek figure panel, coupled with a promise of a design for room in the same style, with description of *treatment in color.* I have anxiously looked for the fulfilment of that promise, as I have a lot of Greek decorative figures, and should like to know how to treat them.

Another promise was in regard to the treatment of cornices, though you say it would be difficult to treat that matter in writing, but I think it might be accomplished by the aid of sectional diagram of cornices, say, for instance, if you were giving the treatment of a room, it would, I am sure, be an inestimable boon to country subscribers if you gave a section of a suitable cornice for said room, with explicit instructions for coloring the various members, and also for picking out enrichments.

You have not yet given us a colored plate of a ceiling design. Another most useful subject you might take up is the treatment of ceilings of irregular shape.

One more suggestion and I have done. I have found that one of the greatest drawbacks in a country painters' shop is the lack of a standard list or sample of useful and popular colors. It often happens that a lady, say, will be going away from home, and will leave orders respecting work to be done, mentioning certain colors to be used. Now it may so happen that no man in the shop will know exactly what those colors are like, hence arises a difficulty. I heard a most amusing story lately of a case in point. A lady left home, leaving written instructions for the workmen. Among other work her hall and staircase had to be done, the walls of which were to be painted a "twilight color." Immediately arose a storm of discussion and argument among the men deputed to do the job. The master did not know the color, so in the evening the men adjourned to the open and took particular note of the colors of things in general as seen by twilight, and the fellow in charge of the job hit on the happy expedient of taking written notes. Next day, laying his notes before him, he set to work and carefully made up two lots of colour, one a peculiar soft bluish color, to match his notes of "twilight sky," and the other lot was a dark warm grey, as per his notes of some distant hills. After carefully straining he (to the astonishment of those looking on) suddenly turned the two lots of color together into a large kettle, stirred it up, and exclaimed, "There you are; come on!" They went, painted their walls, and in due course the job was finished. The lady came home, looked at the walls critically, and said, "It isn't exactly the color I wanted, however it will do very nicely, and looks very well." Now how can these difficulties be met? Where can we get *reliable* samples of the hundred and one colors needed in our trade? The published sample cards of ready-mixed paints do not meet the question anywhere. The list does not cover the ground by a very long way, and even if it did they are certainly, to my mind, very far from *reliable*, especially take the lighter colors and tints, and (their vaunted purity notwithstanding) they are a muddy lot of colors. I find no two men will make a color alike. Ask twelve men to make, say a sage green, and you get twelve very different colors. Now if a large sheet of the numerous colors could be got, with name under each color, it could be varnished and hung up in the workshop, and would not only be a boon to apprentices but also to the men. I have spoken of this, thinking that if you cannot tell us where to get reliable samples you might see your way to publishing a series of sheets, when we should be sure to get what is wanted. The utility of such would be enormous, and by such means too, you might greatly reduce your labour in giving descriptions for color decorations.

Apropos of sign-writing, I am pleased to see your two sheets of "Headings" in this month's number, as it verifies my own opinions, having taken many a useful hint from the well-known headings therein treated.

A new feature of deep interest in this month's number is the article, with sketches, by "W. W. o' that Ilk," and I am very pleased that we are promised more "o' that ilk," as a lot of good suggestions are contained in a small space. I have been much entertained too by "Peter Palleteknife's" sketches, or rather notes.

Another feature, thoroughly in character with the Journal and especially interesting, is your "Church Notes," illustrated. May we have more of such. By-the-way, I have just received a small quantity of the "Willesden Stencil Paper," and I think it excellent stuff for the purpose; it cuts beautifully sharp and clean.

I am afraid I have largely exceeded the privilege which you allow to subscribers in thus trespassing on your valuable time, but I must beg your indulgence, for, "having been going to write" you ever since the commencement of the *J. of D. A.* I have determined to make a "clean breast" of it in one letter, and I trust the foregoing will be sufficient to testify the warmth of my appreciation.

Now, Sir, with humble apologies for boring you with so long a letter, I beg to subscribe myself—Yours, &c.,

CHARLIE CHISELKNIFE.

November 13th, 1883.

BOOKS AND CHRISTMAS CARDS.

THE advent of Christmas is usually looked for with interest by all sizes, ages, classes, and conditions of people, for reasons as varied as the positions of those who hold them; but of all the motives for desiring the appearance of the time-honoured institution, surely, none is purer, or more delightful than, the wishing and longing for the books which are its concomitants, and the cards, which are as essential to it as roast beef, plum pudding, or the holly and mistletoe. We have been educated up to the point that these attendants on the festive season have come to be regarded as indispensable to it, and an expectant public never have to complain that their wants remain unsatisfied, or that there is any slackness on the part of those who cater for them, in providing novelties or attractions to win their favours.

Amongst the books which this season has brought with it, a strong claimant for public support is "Told in the Twilight," by J. E. Weatherby, illustrated by Miss M. E. Edwards and Mr. J. C. Staples. The pictures are all coloured, and are simply delightful in their design, and the manner of their execution leaves nothing to be desired. The art of chromo-lithography has certainly been called into play to the fullest extent in this little work, and no one can glance through its pages without distinctly feeling the better for it. Not the least of its charm lies in the quaintly original and clever designs in mono tint, which adorn the sides of the letterpress pages. No work that we have seen of this class can compare with it for tenderness of feeling and beauty of finish in the printing and in the drawings. The publishers are Messrs. Hildesheimer and Faulkner, of 41, Jewin Street, E.C. The same firm also publish two small shilling works, devoted to illustrating the chequered career of "The Maids of Lee" and "The Men of Ware." The former is broadly humorous and is well worth the shilling that it is sold for, and whilst the latter undoubtedly suffers from being a kind of borrowed idea from the former, the drawings are all full of point and spirit, and, like its companion, it is cheap at the price asked for it.

Messrs. Hildesheimer and Faulkner's Christmas cards also are not a whit behind the high standard of excellence obtained by them in past years. There is a fineness of finish about them that is perceptible to the most casual observer, and is a marked contrast to some other makers of these goods. Amongst the designs we find a goodly number from the talented brush of Mr. Muckley—225, 226, 231, and 232 are all of the most exquisite finish and quality—201 and 207, by the same artist, are equally clever. Mrs. Alice Havers' productions are marked by great delicacy of drawing and colouring. One of the most beautiful of all of Messrs. H. and F.'s cards is the centrepiece from "Patience," the design with which Miss Havers won the first prize of £200 in the great competition of two years ago. "Night" and "Morning," by the same gifted lady, are two allegorical subjects of great refinement and beauty. We could go on enumerating the beauties of the collection did our space admit, but we cannot refrain from congratulating Messrs. Hildesheimer and Faulkner on the front position they occupy as fine art publishers, and sure we are that as long as they continue to supply the public with such charming goods they will have no lack of support.

We are also favoured with the productions of Messrs. Raphael Tuck and Sons, of Coleman Street, E.C. Messrs. Tuck and Sons have been before the public for many years, and have a high reputation for good work in this direction. Some of their cards are wonderfully cheap and of very great beauty. They are, in many cases, the reproductions of noted painters; members of the Royal Academy even being pressed into the army of contributors. In many instances the cards proceed on the old orthodox lines of Christmas greeting, accompanied with Christmas flowers. Nothing could be more desirable, and we feel the influence of the hoary old gentleman already, as we gaze on them. Some of the cheaper cards produced by this firm are really marvels of art at the price, and amongst the higher priced ones the "plush" mounted cards and folding screens are sumptuous in their luxuriant beauty.

Just as we are going to press the cards of Messrs. S. Hildesheimer and Co. are to hand, and we regret that our space will not admit of our doing the justice to them their intrinsic beauty demands. In point of finish and taste they are not behind any we have received or seen. The etchings of scenes near Stratford-on-Avon are very choice and delicate, and form a very pretty Christmas gift. A stand almanac is also a very pretty ornament for over mantel or cabinet shelf. The whole collection has been formed with considerable discrimination and skill, and is sure to be popular.

TECHNICAL CHAPTERS ON GRAINING, MARBLING, SIGN WRITING, EMBOSSING AND GILDING ON GLASS.

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(Continued from page 418.)

CHAPTER XXXIV.—ROSO ANTICO.

ROSE ANTIQUE, as we English translate the name, is a beautiful yellowish marble, with rose colored veins which break up the surface into small patches, with here and there a black vein like a crack in the marble, and intermixed with grey and white patches enclosed with fine black and rose colored lines.

In imitating Rose Antique we proceed in a similar manner as when doing Sienna. The ground must be white, flat, and stippled. We rub the work on with a color mixed in the same manner as for Sienna, but not so yellow, the brightness being taken off with a small quantity of burnt umber added, this must be rubbed on very bare. We now use a crayon, made as before described, with Indian red, having a little Victoria lake added to it, but, before using this crayon, we put in some darker patches of the same color as the ground, with a little red or yellow ochre added. We use the crayon and cut up the surface into small patches, giving the veins a lead one way and, enclosing the dark patches with fine lines. A leading vein of black may be put in an irregular form amidst the previous red veins; this should be very fine, to appear as a crack. We then take the grey crayon and still further cut up the patches here and there very lightly. We now use a small feather, and with this and a little yellow ochre mixed with turps, go over the work and put in a little of the yellow in veins and small touches here and there. We then soften the whole with the hog-hair softener taking care not to smear, if carefully softened it will be blended the one into the other. While it is wet we use a crumpled paper dipped into a mixture of ultramarine blue and drop black, or blue black itself will do thinned with turps; we touch places in and amongst the veins and patches with this, and while it is wet dab the places so touched with the rag; this cleans off the yellow color and leaves patches of grey and white, which give depth and transparency to the work. When this is dry, we scumble with the feather and thin white, darken some of the yellow parts and touch up the whites and greys.

(To be continued.)

BOOKKEEPING

FOR PAINTERS AND DECORATORS.

By J. R. Hesketh.

CHAPTER V.

As promised in our August number, we now propose to show how a Profit and Loss Account is made up, and the dealing with the balance or result emanating from that source.

We presume that all the books, *i.e.*, Day Book, Invoice Book, Cash Book, and Returns Book have all been duly posted up to the individual accounts either on the debtor or creditor side of the Ledger.

A profit and loss account might almost be called an account with "John Smith," as the only difference between it and "John Smith's" account (assuming for the moment "J. S." is a customer of ours) is this—that whereas we charge "John Smith" with goods bought from us through the Day Book in single items, we credit the Profit and Loss Account with the total of Day Book in one item, and with regard to the Invoice Book, the total of this being purchases, is also posted to Profit and Loss Account, on the debtor side; every element of payment or expense such, for example, as wages, petty cash, office expenses, discounts, &c., follows on the same side with the purchase.

Any money received for goods sold for cash, which, as suggested in our August number, should be posted to the credit of an account called "Cash Sales Account," should be posted to the credit of Profit and Loss Account.

Stock should, of course, be taken at the commencement and end of the period under review. The amount of such stock at commencement being charged or debited to Profit and Loss Account; the amount at the end of the period of making up the books being credited to Profit and Loss Account.

We give hereunder an example of the form of Profit and Loss Account to illustrate our meaning :—

Profit and Loss Account for six months ending June 30th, 1883.

Dr.	£	s.	d.	Cr.	£	s.	d.
To Stock, 25th Dec., 1883..	60	0	0	By Painting and Decorating (per Day Book)	500	0	0
,, Purchases per Invoice Book	200	0	0	,, Cash Sales (per ditto Account)	27	10	0
,, Wages	104	0	0	,, Stock, 30th June, 1883..	80	0	0
,, Office Expenses, Rent, Petty Cash, &c.....	20	0	0				
,, Miscellaneous Expenses such as Travelling Expenses, Discounts, &c.	30	0	0				
,, Balance (being Profit)..	193	10	0				
	£607	10	0		£607	10	0

From this statement it will be seen that the profit is £193 10s., and this amount should be transferred to the credit of "Capital Account." Assuming, therefore, we had £100 to commence with on 25th December, 1882, in addition to the stock of £60, and have withdrawn cash during the half-year to the amount of £120, our capital at 30th June, 1883, would, therefore, be £173 10s., made up as follows :—

Dr. *Capital Account.* Cr.

1882.	£	s.	d.	1882.	£	s.	d.
June 30th—To Cash Withdrawn.....	120	0	0	Dec. 30th—By Balance	100	0	0
,, ,, Balance ..	173	10	0	1883. June 30th— ,, Half-year's Profit....	193	10	0
	£293	10	0		£293	10	0

The Balance Sheet, should next be prepared. This is a statement showing the position of the concern. On the left hand, or debtor side, the capital of £173 10s. should be put, and the amount owing to creditors, *i.e.*, people from whom we have bought goods, &c., and on the right hand or creditor side of the account, the assets, *i.e.*, the amount owing to us for work done, materials supplied, &c., cash in hand and at bank, and for stock of goods, &c. Such account is prepared, therefore as follows :—

Dr. *Balance-Sheet to June, 1883.* Cr.

Liabilities.	£	s.	d.	Assets.	£	s.	d.
To Creditors.....	146	10	0	By Debtors	140	0	0
Capital.				,, Cash in hand	20	0	0
,, Amount per Capital Account.....	173	10	0	,, Cash in Bank	80	0	0
				,, Stock on hand	80	0	0
	£320	0	0		£320	0	0

It is almost impossible, in writing about the subject, and work of keeping books, to mention every single point, but we have shown in our articles the general outline to be followed, and any one, we think, with a slight knowledge of books would be able to keep a set of books correctly, if our remarks and suggestions are acted upon and followed out.

TRADE INTELLIGENCE.

It has, no doubt, surprised a number of our subscribers that we have not hitherto made any allusion to our Prize Competition. We have had numerous letters on the subject, which we take this opportunity of replying to. We have decided that for next year, at all events, we will not organise another competition. Whilst we had some undoubted good work in our last exhibition, the general results were hardly adequate to the valuable prizes offered and the trouble and expense incurred. We think our exhibition suffered from the connection with the Building Exhibition, that is to say, it somewhat lost its identity. As matters turned out, it certainly was at a disadvantage, owing to the placing of a number of stands exhibiting architectural drawings right in front of our own show. We have no intention of abandoning the idea of another exhibition, but we think more favourable time and place may present themselves, where more justice may be done to our exhibitors and to our exhibition. We will give due notice of our intention, and shall endeavour to make our next effort a really representative one. The Certificate is now designed, and is in the hands of our printer; being printed in colors. We hope to have ready for sending off about the middle of the month and, are sure our friends will approve of them when they see them.

To Grainers.—A gentleman over from Australia is open to make an engagement with a steady, good workman willing to go to the Colonies; permanent situation to a good workman. Address C. S., care of the Office of this Journal.

We would draw attention to an important reduction in price of Lincrusta Walton Dado rails which Messrs. F. Walton & Co. Ltd. announce. The reduction amounts to nearly 25 per cent, and now brings in these beautiful rails at a price that competes favourably with any others in the market. A reference to the new advertisement page, which is to be found in our Journal, will show some of the designs they are made in.

It is pleasant to find one's opinions confirmed from independent sources, and the subjoined letter which Messrs. Dack have handed to us attest sufficiently the truth of our recommendations; and, as will be seen in another part of this issue, even so critical a critic as "Charlie Chiselknife" gives it a strong word of praise. We are especially pleased to find our judgment approved, as we believe we were the first to use the paper for stencil purposes. Messrs. Whitehead and Co., we may say, are amongst our oldest subscribers :—"Broad-street, Sowerby Bridge, November 15th, 1883.—Enclosed please find cheque value £1 6s. 8d. in settlement of your account, which please acknowledge by return post. We must give you credit for the paper, as we find it first-class stuff.—Yours faithfully,

"E. Whitehead & Co.

"To Messrs. W. N. and R. Dack, Manchester."

The following unsolicited Testimonial from a Scotch decorator, is a high tribute to the decorative value of "Albarine," and we have much pleasure in giving it a wide publicity :—"Dear Sir,—The Yorkshire Varnish Company's "Albarine"

has always been a great favourite of mine, and I have now used it for a good many years. I am just doing a yacht belonging to Sir W. Collins, which *I did seven years ago. The saloon of the same is as good as the day it was done,* just like a piece of china ware. It is certainly a splendid enamel, and well adapted for our use. When gilding is wanted no egg-size is needed, the gold cleans off nicely, and is easily managed in washing. The "Albarine" is just laid on like varnish, and all the preparation necessary is a good solid flat ground. I hope you are selling lots of it; and if the painters all thought as much of it as I do, I am sure your orders would be large. —I am, faithfully yours. "W. R. MAINDS.

"To Mr. Kirkpatrick, Agent to the Yorkshire Varnish Co., Glasgow."

IT is with great pleasure we call the attention of the trade to a most valuable and useful decorative medium now being introduced by Messrs. T. Pavitt and Sons of Southampton Row, London, W.C. Mr. Pavitt is the sole proprietor in England of what are termed "Florentine Bronzes." These are a series of coloured bronzes of every possible shade; reds, greens, golds and silvers, each in several shades. The speciality of the Florentine Bronzes lies in the fact that they are sent out in a liquid form ready for applying, somewhat in the form of the Bessemer gold. We have tested these Bronzes as far as their decorative qualities go, and must rank them amongst the most valuable of the aids which modern science has given to the decorator. The ease with which they are applied increases their value tenfold. We recently decorated some Lincrusta Walton screens with them and got a more satisfactory result than we have hitherto been able to attain. The proprietors give us their most positive assurance that these Bronzes will not oxidise, the way is therefore clear for the decorator to make use of them with confidence. We strongly recommend them.

THE usual plan at the present day when a business gets too big to manage, or too poor to be worth managing, is to turn it into a "Limited Liability Company." Although the Silicate Paint Company's business has grown beyond management in the ordinary way, the proprietors have not adopted the popular mode of relieving the pressure. It is as much in the interest of their Scotch and Irish friends as their own that the Silicate Paint Company have sold their Scotch and Irish business. The numerous complaints of delay in the execution of orders are explained by the difficulty of working such a business from a remote centre, and we are convinced that the new arrangement will prove an effective remedy for these shortcomings in future. The new firm will keep a large stock of all the Silicate Paint Company's specialities, which will, as heretofore, bear the registered mark and title of the Company, thus guaranteeing to customers the genuineness of their supplies.

THE following circulars which we have been favoured with are themselves explanatory of the important transaction which has taken place between the Silicate Paint Company and Messrs. James Bennett and Co., of the Scottish Silicate Paint Company. We wish the new firm the utmost success:—"Charlton, London, S.E., 15th November, 1883. Dear Sir,—We beg to inform you that we have transferred our Scotch and Irish business, with the stock and book-debts as at 1st November, to Messrs. James Bennett and Co., Glasgow, who will in future conduct same under the style of the Scottish Silicate Paint Company. The great expansion of our wholesale and export trade has rendered this step necessary in the interests of our Scotch and Irish customers, whose wants will now be better attended to. We thank you for your past support, and confidently recommend the new firm for a continuance of the same.—Yours faithfully, THE SILICATE PAINT COMPANY (J. B. Orr and Co., proprietors).—"173a, St. Vincent Street, Glasgow, 15th November, 1883. Dear Sir,—Referring to the annexed circulars we have pleasure in informing you that we have entered into a contract for the supply of Charlton White, the only successful rival to white lead; Duresco, the celebrated washable distemper for new or damp plaster; also Enamels, Leadless Driers, and all the other specialities manufactured by the Silicate Paint Company. Including the above-mentioned manufactures, we have also a complete stock of ordinary colors, and all painting requisites. We trust to secure your orders, and you may depend on same having prompt attention.—Yours faithfully,

"JAMES BENNETT AND CO."

MR. JAMES DUTHIE, who for the last three years has done splendid work for the Silicate Paint Company, in Scotland, maintains his connection with the new firm, the Scottish Silicate Paint Company, and if he only does the same justice to the new as to the old company, Messrs. Bennett & Co. will have every reason to be satisfied.

ANSWERS TO CORRESPONDENTS.

E. B., CARDIFF.—We will bear in mind your suggestion. We shall issue some designs for painting on glass in connection with the articles on that subject now appearing in the Journal, these no doubt will be useful to you.

W. J., FRANKFORD, IRELAND.—You will find that your non-success in stencilling in Brunswick black on glass for embossing, is due to either using too much black in the stencil brush or to the rough edges of the stencil. It is not possible to get the edges as sharp with the stencil brush as with the pencil, that is understood by all professional men, but, with care, very good work can be done. It is better to use the brush comparatively dry, and go over the work twice; by doing so you will make a much better job than with once doing; care and patience is all that is required. If you use tallow or any greasy mixture you will be sure to fail. We have found it always the best plan to work only with the material we *know* will answer the purpose intended, and not be wasting our time running after this or that nostrum. With regard to the emblematical designs you enquire about, you will find eleven designs in the November and December numbers for 1881 of this Journal. The special designs you name will be issued with the articles on Church Decoration, announced in our present number.

J. T. E., ISLINGTON, LONDON.—Any transparent varnish will answer the purpose you name if the letters are strongly sized before the varnish is applied. Turpentine varnish, or Canada balsam, will answer both for sticking on the letter or for varnishing the fronts to make them waterproof. We do not know of any solution that will make water colors waterproof, and mix with them in working, There is a silicate solution of a waterproof nature which might answer the purpose if applied over the water color, but we must say we have not tried it either one way or the other. Possible it might mix with the color and work all right. Messrs. Griffiths, Berdoe, and Co., Liverpool, are the makers.

T. E., THORNBURY, GLOUCESTERSHIRE.—You will receive a full reply in our January number.

P. L. S., KNARESBOROUGH.—Tynecastle Tapestry is the name given to a wall covering made by Mr. Scott Morton, of Edinburgh. It is highly embossed or blocked out, and the texture is that of a rough canvass. It is a very decorative material, and is capable of being treated in a variety of ways. The address we have given above will be sufficient, and all information can be obtained by addressing Mr. Scott Morton himself.

J. C., BRISTOL.—You will find an answer to your communication in the first paragraph under Trade Intelligence.

J. C., DUDLEY.—The *Art Amateur* is published in New York, U. S. America, and costs about 1s. 5½d. per month.

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